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ABSTRACT

The purpose of this study was to analyze the characteristics of paraprofessional child care workers as determined by ratings given on the Mazyck Rating Scale for Paraprofessionals (MRSP). The scale was developed for this study and comprised two categories of characteristics, Personal-Social, and Educational-Biographical-Working Relationships. Raters selected were child development specialists, Head Start program directors, and two groups of paraprofessionals, one trained and the other untrained. A major hypothesis was that subjects would differ significantly in their ratings of characteristics of paraprofessionals, and this hypothesis was verified. Statistical analysis identified nine factors to be considered in characterizing paraprofessionals: general personal qualities; demographic facts; education; temperament; maturity; work effectiveness; frustrating situations; positive work attitudes; and feelings of security. Any future use of the MRSP scale should add a statistically derived third characteristics category: Reaction to Stress, and scale items should be rewritten to be more easily understood by paraprofessionals. Appendixes include a sample of the MRSP; List of Characteristics; data forms; correspondence; and a list of child development specialists participating in the study. (Author/NH)

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CHILD CARE PARAPROFESSIONALS: CHARACTERISTICS FOR SELECTION

by

Harold Eugene Mazyck, Jr.

A Dissertation Submitted to
the Faculty of the Graduate School at
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Approved by

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APPROVAL SHEET

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CHAPTER I

INTRODUCTION

Child care for young children has been the concern of parents and professionals who have sought to provide adequate and quality care programs for numbers of years. Today, more emphasis is being placed on the type of child care available than in years past due to: (1) the growing needs of working mothers to have help in child care, and (2) the increased numbers of young children in the population below the age of six years. There were 18,506,000 children under the age of five in 1968 (U. S. Bureau of the Census, 1970). Two efforts of consequence have occurred in recent years to put quality into child care, especially day care: First was the establishment of state licensing for child care in all but three states in the United States, North Carolina, Mississippi, and Florida (Foster, 1969). Second, a Congressional hearing in Washington, D. C. before the Select Subcommittee on Education and Labor, House of Representatives, Ninety-first Congress, First and Second Sessions, November 1969 through February 1970, (U. S. Congress, H. R. 13520, 1969-1970) brought together numbers of authorities in child care, who presented this important need at the national level and requested it be met through the proposed Congressional Bill to provide comprehensive preschool education programs in the Department of Health, Education, and Welfare (U. S. Congress, H. R. 13520, 1969-1970).

Not only is the matter of providing care important, but even more crucial is the need for attention to the kinds of people who will work closely with the children in care giving situations. Many centers rely on the use of paraprofessionals or non-professionally trained assistants to attend to the children. The larger the center, the greater the possibility of having many paraprofessional workers. The important question is what kinds of people should these paraprofessionals be who are going to have a one-to-one relationship with children.

Conversations with an internationally recognized authority in the field of child care, Dr. Mary Elizabeth Keister of The University of North Carolina at Greensboro, and a search of the literature revealed that there are no existing lists of characteristics available for use when directors of child care centers are choosing paraprofessional workers. Evidence points to a need for such a list of characteristics since large numbers of child care centers are being organized annually in cities across the country. Child care is becoming increasingly more important in current society. Mothers are more than ever before finding a need for group care services outside the home.

Many studies of paraprofessionals, mental health aides, teacher aides and assistants, and Head Start nonprofessionals have been completed but the literature is exceedingly sparse in the areas of child care paraprofessionals. There is a need to characterize the type of person who may be a desirable child care paraprofessional.

Statement of the Problem

The problem involved in this research was to analyze the characteristics of paraprofessional child care workers as determined by ratings given on a scale of paraprofessional worker characteristics.[1] The scale used was specifically developed for this study, and the raters were child development specialists, directors of child care programs, and two groups of paraprofessionals, one trained and the other untrained. In addition to the main problem, the study pointed out characteristics that tend to identify paraprofessionals who were more similar to professional workers in child care as opposed to those who were more similar to untrained paraprofessional child care workers. The identifiable characteristics could have value for employers of paraprofessional child care workers who need selection criteria.

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[1] Hereafter, the rating scale composed of two categories of characteristics used to identify a desirable paraprofessional child care worker, as discussed in this research, will be referred to as The Mazyck Rating Scale for Paraprofessionals (MRSP).

Hypotheses

The major hypothesis for this research purposed that child development specialists, child care directors, and child care paraprofessionals differ significantly in rating characteristics of paraprofessionals on a scale.

This hypothesis was derived from the assumption that child development specialists highly trained along academic lines would tend, as a result of their educational background, to rate work fitness characteristics (educational, biographical, and working relationships) higher than other characteristics. It was expected in this research that directors and paraprofessionals would rate characteristics more similarly, and that directors and trained paraprofessionals would be more similar in their ratings than directors and untrained paraprofessionals.

Two subordinate hypotheses were: (1) There was no significant difference between ratings given by child development specialists, child care directors, trained child care paraprofessionals, and untrained child care paraprofessionals on the personal-social category of the Mazyck Rating Scale for Paraprofessionals (MRSP). (2) There was no significant difference between ratings given by child development specialists, child care center directors, trained child care paraprofessionals, and untrained child care paraprofessionals on the educational-biographical-working relationships category of the Mazyck Rating Scale for Paraprofessionals (MRSP).

Background for this Study

Organized child care is not a new venture in the area of child rearing. The first day care center "was located in a New York City Hospital in 1854 (U. S. Congress, H. R. 13520, 1969-1970, p. 406)." The Nursery and Child's Hospital made space available to the children of working mothers (U. S. Congress, H. R. 13520, 1969-1970). During the years that followed little attention was given to providing any beneficial conditions for the children of women who were entering the work force in increasing numbers. "During World War I, centers were operated by private or commercial support, but their programs for children did not measurably improve (U. S. Congress, H. R. 13520, 1969-1970, p. 406)." About 20 years later,

> . . . in 1936 six million dollars was earmarked by Congress for expanding day care programs under the WPA, which provided new jobs for women working in these programs. In 1942, the Lanham Act provided fifty-one million dollars for three thousand local day care centers serving children of women working in the defense effort (U. S. Congress, H. R. 13520, 1969-1970, p. 406).

The 1950 White House Conference on Children and Youth approved this recommendation:

> As a desirable supplement to home life, nursery schools and kindergartens, provided they meet high professional standards, should be included as a part of public opportunities for all children (Leeper, 1970, p. 79).

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Many writers have referred to the 1960's as the decade devoted to the disadvantaged. During this decade the Office of Economic Opportunity was established at the Federal level. Numerous programs were developed that were designed to help low income families. Head Start was conceived in February 1965 as a program of the federal government with a plan of attack geared to providing preschool experience for 100,000 children from low income families who needed the opportunity to "catch up." By the end of August 1965, President Lyndon B. Johnson announced an extension of Project Head Start beginning with a year round program for up to 350,000 children between three and five years of age; second, summer programs for those not included in the year round classes, which could enroll 500,000 children; and third, a follow-through program for summer Head Starters; to include home visits, special tutoring, field trips and medical care (Office of Economic Opportunity, 1965).

Head Start has continued to provide opportunities for educational enrichment to children from low income families. It has also made it possible for large numbers of low income people to assume positions of responsibility along a career ladder. The Third Annual Report of the Office of Economic Opportunity emphasized

> . . . that of the 19,400 nonprofessionals now employed in full-year Head Start programs, a substantial percentage, with good supervision

> and continuous training should be able to assume some or even full professional responsibilities (Office of Economic Opportunity, 1967, p. 21).

The Sixth Annual Report of the Office of Economic Opportunity stated in regard to Project Head Start, that the program

> . . . has instituted a new careers aspect, Supplementary Training. As a result of this program over 3500 nonprofessionals and 1800 professional staff members, while continuing to work in Head Start, have now successfully obtained college credit hours (Office of Economic Opportunity, 1968, p. 23).

In 1968 a new demonstration program, Parent and Child Centers, planned jointly in 1967 by the Department of Health, Education, and Welfare, the Department of Labor, and the Department of Housing and Urban Development, had completed one year of service to children below the age of three years and their parents. This program attempts to fill another gap where educational and social enrichment may be absent (Office of Economic Opportunity, 1968). All of the foregoing programs designed for enrichment of children are continuing in various stages of development.

Without a doubt, child care services should continue and hopefully improve if they are going to provide the kind of early stimulation so important to the young child.

Emphasizing quality care through the astute selection of paraprofessional child care workers was a subject on which child care literature was incomplete. The literature gave little, if any attention to this topic. However, considerable information was recorded about the role and duties of the paraprofessional worker. Attention was drawn to how well the workers perform their jobs, how well they may move on to higher level jobs, and also how easy it was to discern that these people are not professional personnel and should not be allowed in the professional domain.

Literature was readily available on teacher aides, mental health aides, social work aides, home health aides, and various other categories of aides that were established through specially funded Office of Economic Opportunity programs during the period of the early to the late sixties. A large number of reports, studies, speeches, and other written presentations have been reviewed and characteristics have been identified which other writers have indicated as characteristic of paraprofessional workers.

A computerized retrieval search was done with the assistance of Dr. Ellen M. Champoux, School of Home Economics, The University of North Carolina at Greensboro, under the auspices of the Occupational Research Unit, North Carolina State Department of Public Instruction with the cooperation of the personnel in the research unit. This research was done under five headings: paraprofessional school personnel, subprofessionals, nonprofessional personnel, teaching assistants, and teacher aide programs. The literature search covered the period from 1960 to February,1970. A total of 257 documents were identified from the computer search and 147 from a manual search from February to September,1970. Three hundred and four documents were reviewed.

Clarification of Terms Used

The contextual study of terms related to this specific study were: "Human service aides are persons trained in New Careers programs to assume aide responsibilities and assist professionals in the delivery of human services (Shatz, Fishman, and Klein, 1968)." Child care aide is one who works in a nonprofessional capacity in a child care center. A teacher aide or classroom aide may be defined as

> . . . a school employee who is qualified by education, experience, and character to relieve one or more teachers of time consuming, noninstructional tasks so that teachers may devote more time to instruction (Fitzpatrick, 1965, p. 6).

The term paraprofessional is defined as

> . . . a person who has less than the required or expected level of educational training, but who is performing duties usually performed by the professional, under the supervision of the professional. A paraprofessional may be a paid or volunteer worker. He may be assigned to

> assist any certified staff member, e.g., a teacher, a counselor librarian, or administrator (Glovinsky, 1970, p. 1).

The nonprofessional social work aide

> . . . refers to many disparate kinds of workers. Included under this rubric are holders of Bachelor of Arts degrees who provide services ordinarily dispensed by Master of Arts or Ph. D's, persons with some college training who hold jobs ordinarily requiring a B. A., students and local residents of the target neighborhood who may not have finished high school and whose income may be under the poverty level - to mention just a few (Grosser, 1967, p. 1).

The home health aide is another type of human service worker and may be defined as related to

> . . . the fields of public service in which a person-to-person relationship, crucial to the provision of services exists between receivers and providers of the services. It includes the fields of health, education, mental health, social services, recreation, law enforcement, corrections, rehabilitation, housing and employment (Shatz, Fishman and Klein, 1968, p. vii).

Connell (1966) defined auxiliary personnel as denoting employees who, though lacking the traditional requirements for the educational profession, perform auxiliary functions such as helping, assisting, giving aid, and supporting the learning process.

Head Start is a child development program which offers the economically disadvantaged preschool child learning experiences, medical and dental examinations, and in some cases, treatment and proper nutrition. It is carried out as a full year program for preschool children beginning at age three, and an eight week summer program for those children who enter the program in the fall. Follow Through is a federal assistance program designed to carry the benefits of Head Start into the regular school system. The last term to be defined in this group of programs sponsored by the Office of Economic Opportunity is New Careers. New Careers has as its main objective to contribute to and facilitate the process of designing and creating new career jobs in public service. The program opens up career lines by setting up realistic entry level requirements and by making structural advancement to better paying and more responsible jobs (Connell, 1966).

Assumptions

The major assumptions in this study were that child development specialists (professionals in the field) know what kinds of people they, as specialists, prefer having involved in the care of children and can identify them by some common terminology. Then too, the child care center directors can differentiate in their thinking the paraprofessional who meets their expectations and those who do not, and, at the same time, they can concretely identify their expectations by some characterizing statement. It was assumed that paraprofessionals have some ideas of their strengths and weaknesses as child care workers and can identify these characteristics when given a list of criteria related to child care workers. It was expected that the ability of these three groups of people could assist in establishing discernible characteristics that identify the paraprofessional worker through individual responses to definitive statements presented in the form of a rating scale.

Limitations

The literature reviewed for this study covered the period 1960 to September 1970. The major concern of the research was with the paraprofessional who works in child care centers. Using characteristics derived from other types of human service workers, an attempt was made to define a set of characteristics for the paraprofessional who works with children.

The largest proportion of the subjects in the sample for this research were aides and directors of Head Start from its Mid-Atlantic region and from Kentucky and North Carolina of the Southeast region. The smaller proportion of the sample were the selected child development specialists listed in Appendix G. Generalizations derived from the research refer to the population used in the study.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of literature for this research was divided into seven major areas, a general review of characteristics of nonprofessionals, of human service aides, of child care aides, of teacher aides and assistants, of social work aides, of home health aides, and of neighborhood workers, and related aides. It covered the period from 1960 through September, 1970.

A variety of terms was used synonymously with the term paraprofessional. Many writers described the subprofessional as one who performs tasks "for which full professional training is not necessary (Lynton, 1967, p. 2)." Most of these jobs fall in the category of entry level and only require the kind of training that is below professional level, and in which one can become adequately skilled to perform the work with a short training period. Part of the problem of gathering data on the subprofessional, paraprofessional, or whatever other term is used to designate this person, was confounded by the confusion of terminology and conception (Lynton, 1967). In spite of this confusion, considerable agreement exists that paraprofessionals are needed in the area of human services. Ross gave three major reasons for using nonprofessionals in human services:

> (1) the acute shortage of professionals;
> (2) providing employment opportunities for those having the greatest job problems namely, the poor; (3) improved communication between the professional and his "client" (1969, p. 10).

Lynton stated that leaders in the fields of health, education and welfare no longer see the subprofessional as an expedient to temporarily fill a vacancy, but rather as an "untapped manpower resource with long range potential (1967, p. 67)." The nonprofessional frequently becomes quite competitive with professionals and their often recognized ability to communicate with the low-income community in an effective manner may surpass the professional in effectiveness. Riessman (1967) reported that many nonprofessionals with training can find themselves challenging the professional as they both attempt to reach their clientele. He further stated that the nonprofessional has the characteristics of humor, earthiness, neighborliness, and all the characteristics that give him positive appeal to low-income populations.

Cohen (1965, p. 20) wrote that the Women's Talent Corps considered

> . . . nonprofessionals as teacher's assistants, assistants in nursing, pre-nursery programs, elementary language skills, as guidance assistants in school, casefinders, neighborhood workers, remedial instruction aides, housing and legal service assistants, as public relations

> personnel with employment agencies and businesses, in housing projects, and with local newspapers or mass media operations, as counselors and guides to recreation and sports programs.

It should be realized that many of the foregoing kinds of jobs would only be found in metropolitan areas. Cohen (1965) further stated that selecting prospective non-professionals for employment will require careful advance planning, since being adult does not necessarily signify maturity, responsibility, dependability and other significant characteristics.

Human Service Aides

In discussing the area of human service aides, Cohen (1967) advocated the establishment of a College of Human Services as a part of the work of the Women's Talent Corps. This college was viewed as the agency for preparing a wide variety of aides that would deliver services of different kinds to the public. This training site would provide a type of education for the mature working people of the society and allow such new careerists to perform functions that an overburdened staff cannot perform in schools, hospitals, neighborhood houses, welfare centers, and community development agencies.

In reference to the human service aide, Shatz, Fishman, and Klein (1969) found confidentiality a desirable characteristic, while Denham (1968, p. 32) added that the aide should have

> . . . no current criminal action pending . . ., no gross physical defects, and if a school drop-out, he must have been out of school for at least one year.

It was further suggested that aides range in age from 16-21 years. Denham (1969, p. 84) made this comment about the human service aide:

> The time is still far off when the social, political and economic climate of the country will be such as to make commonplace the utilization of a relatively uneducated, disadvantaged, and perhaps delinquent young person as a worker in human services.

Denham believed however, that criteria could and should be placed at a minimal level so as not to screen out people who could be successful in the program.

Child Care Aides

Birnbaum in the discussion of child care aides in the Project Education and Neighborhood Action for Better Living Environment (ENABLE) stated that their selection should take into account

> . . . role expectations inherent in the helping function; the personal qualities or strengths which will enhance effective role performance; the background factors which account for the aide's special assets (1967, pp. 37-38).

Birnbaum stated aides should have compassion, ability to identify with the poor, ability to encourage self-help in others, appreciation of oppressed people, and the impetus to help the poor to learn how to exercise control over social forces which affect them. In addition, adequate verbal communication skills and the aide's having roots in the target community were essential (Birnbaum, 1967).

Fishman et al. (1965) viewed the rapid expansion of the child care field as putting considerable emphasis on the need for qualified workers, while Rahmlow and Kiehn (1967) viewed the need as arising from the large numbers of working mothers who need day care services. This expansion was due to the values placed on day care nursery school and pre-school education which was concerned with providing a sound background for growth and learning. Previously, poorly trained staff, low salaries, and a dearth of channels for promotion within the profession have been critical problems. In the New Careers training programs for child care aides, Fishman pointed out these qualities as desirable for day care center (child care) aides:

1. ability to read and write simple directions.
2. ability to understand individual differences among children.
3. ability to be flexible and calm in unpleasant clean-up jobs, accidents, with frightened children, with fights, and in field trips to new places.
4. knowledge of children's games.

> 5. capacity to work with children from three years old to twelve years old . . .
>
> 6. degree of flexibility which will enable him to attend previously planned programs . . .
>
> 7. an ability to set limits firmly and appropriately (Fishman, et al., 1965, pp. 94-95).

Rahmlow and Kiehn (1967) viewed the analysis of tasks performed in child care as giving rise to a list of basic knowledges requisite to their performance. The authors saw child care workers as relaxed, patient, secure within themselves, having a sense of humor, warm, out-going and firm, yet not dominating, and as people who enjoy children and accept them. Confidence and ability to see limitations are essential. Rahmlow and Kiehn (1967) reported that from their study only two percent of child care workers were male and ninety-eight percent female, fifty-two percent were over 30 years of age.

Teacher Aides

Literature about the teacher aide, classroom aide, auxiliary school personnel, or education auxiliary as found in a wide variety of settings, Head Start programs, the regular elementary classrooms, specialized educational programs, and other related educational programs was abundant.

Bowman and Klopf stated that

> . . . in 1953 the first major experiment in utilization of auxiliary personnel in American education was undertaken in Bay City, Michigan, with funds from the Ford Foundation. This program was designed to increase teacher effectiveness by freeing teachers from disproportionate nonprofessional functions. Two similar studies followed shortly, also financed by the Ford Foundation - the Yale - Fairfield (Connecticut) Study and the Rutgers (New Jersey) Plan. These experiments were aimed at assisting administrators in preserving quality education in the face of severe shortage of professional personnel, the rising costs of education and the problems of oversized classes. The teaching profession appeared to react negatively on the whole to an employment device which would assign available educational funds to the employment of untrained personnel rather than to the employment of more teachers. Some observers believe that the resistance created among teachers by the emphasis on budgetary considerations in the Bay City experiment retarded progress in the development of auxiliary personnel in school systems for at least a decade (Bowman and Klopf, 1968, p. 7).

From about 1965, the employment of auxiliary personnel in schools has risen sharply due to available Federal funds on a massive scale for programs designed to battle the war on poverty. The funds were available through the Office of Economic Opportunity, the Office of Education, and the Department of Labor (Bowman and Klopf, 1968). From a study of 15 projects involving auxiliary personnel in education, Bowman and Klopf (1969) found several characteristics or criteria for the selection of auxiliaries that these projects had in common with each other: good health, 11th or 12th grade education as a general minimum, economic condition below the poverty level, resident in the disadvantaged community, interest in children and in the program, evidence of maturity and stability, and a recognizable degree of immediate self-improvement.

In considering characteristics of paraprofessionals, especially those in many of the Federally funded demonstration programs, observation revealed that the phenomena of "creaming" took place. This was the selection of a low-income person to do a job, who though he is poor, has values, appearance, and behavior most similar to middle-class professionals (Bowman, and Klopf, 1968).

Congressional consideration for funds has been rewarding. The work of United States Congressman James H. Scheur resulted in The Scheur-Nelson Amendment to the Economic Opportunity Act which was designed to spend about 70 million dollars in cities and municipalities to put the poor into human service occupations (Moncur, 1967).

Fitzpatrick (1965) in a study emanating out of the New Mexico State Department of Education at Santa Fe listed the following minimum qualifications for the classroom aide

> . . . high school graduate, at least 21 years old, ability to operate A-V machines, ability to operate duplicating machines, ability to type, good handwriting, good oral reading ability, ability to work with children and adults, mathematical ability, sense of professional ethics, emotional maturity, command of the English language, and attendance at a classroom aide workshop.

In each instance of the above characteristics, the individual was required to demonstrate that he had the quality requested either by acquiring a certificate, or presenting some other written form, or performing an actual demonstration.

Specific characteristics were cited in the Berkeley Project, one of 15 projects using teacher aides surveyed by Bowman and Klopf (1968). The criteria used in the selection of aides for this project were: to be literate, but no specific educational standards required; to have a child in the specific school in which the person is going to be an aide; to have a low level of income; to be emotionally stable and have a moderately wholesome attitude toward others; to abide by the rules of the school; and to meet state and local health requirements. Many other reports and studies of the aide in the educational setting had a list of characteristics that had been devised for its own needs. In New York City where teacher aides (kindergarten paraprofessionals) were being used in 1968 in the City Public schools, large numbers were registered for some form of college credit. Ward (1968) reported that the "typical" paraprofessional had the following characteristics: A mother, age 35, who works in the public schools 30 hours a week; who has been out of school for well over 15 years, but attends classes three or four evenings a week; and who manages a household of five family members on a family income of about $6500 a year before deductions.

In descriptions of Paraprofessional Programs in Education, The National Conference on the Paraprofessional, Career Advancement and Pupil Learning in Washington, D. C., January 9-10, 1969, under the sponsorship of the National Commission on Teacher Education and Professional Standards and the National Education Association, agreed on a list of qualifications determined for the helping teacher (aide). The qualifications were:

1. must be available five hours per day, 8:30 a.m. to 2:30 p.m., five days per week for the regular school calendar.
2. age 17 or older.
3. ability to read, write and compute at the classroom level at which employed.
4. personality qualifications conducive to working with children.
5. appropriate personal appearance (p. 11).

Among the New Careers Programs sponsored by the Office of Economic Opportunity, especially the New York City office, teacher aides who were recruited had to meet these criteria: resident of the low-income area, previous experience or interest in working with school-age children, general understanding of the goals of the program, demonstrable ability to work with teachers and children,

U. S. citizenship, age range from 18 through 70, and good physical and mental health without outstanding disabilities (Carr, 1968). In general, formal education was considered less important than other qualities necessary for an education auxiliary.

A most extensive list of qualifications for aides in education was developed for use in 17 school districts participating in the Gulf School Research Development Association. The qualifications were:

1. an earned minimum of a high school diploma.
2. a sense of orderliness and an ability to work within a routine and yet be flexible and undisturbed by change.
3. ability to work under supervision of the classroom teacher.
4. self-confidence and a sense of humor.
5. common sense and good judgment in order to cope with myriad emergencies which arise and the foresight to anticipate possible emergencies.
6. ability to assume responsibility.
7. ability to make mature judgments and reflect mature reactions.
8. an abundance of physical energy and good health.
9. ability to remain calm and not become easily distressed or upset.
10. self-reliance and the ability to feel secure in working with professional personnel.
11. a pleasing voice that is gentle, but projects authority.

12. good moral character.
13. ability and desire to understand children, love children, and work with children.
14. neat appearance.
15. a good command of the English language, free of major dialectical handicaps and problems that can be transmitted to children.
16. ability to prepare and maintain clerical records and reports.
17. ability to spell correctly and work simple arithmetic computations.
18. ability to understand and follow oral and written directions.
19. ability to do research for teachers.
20. ability to relieve the teacher of such tasks as may be routinely assigned by the teacher.
21. ability to deal with pupils, parents, and the public in a courteous and tactful manner.
22. ability to work harmoniously with fellow employees.
23. ability to have insights into the personality problems of others.
24. a willingness to work.
25. considerate and thoughtful.
26. alert and seeking for ways to serve teachers and children.
27. cooperative.
28. receptive and responsive to learning things.
29. a resident and a member of the community with knowledge of an access to community.
30. initiative.

31. ability to communicate.
32. good family background.
33. patience (DeHart, 1968, pp. 17-19).

The Gulf Coast administrators indicated that preference was given to aides who had special interests in and experience with children, showed a pleasing personality, exhibited a degree of maturity, had contact with the public previously, showed an awareness of human behavior, and was a resident in the community in which the school was located (DeHart, 1968).

Bowman and Klopf (1969) concurred with most of the qualifications named above by the Gulf Coast School Research Development Association; however, these qualifications were described as competencies desired in the paraprofessional as a member of the educational team.

Rittenhouse (1969) reported from a Stanford Research Institute study of paraprofessionals in education that screening criteria vary widely. A most common educational criterion is a high school diploma or its equivalent, family income below a certain level (usually $4,000), and age is not restricted. Health criteria exist for almost all aide programs. Some programs assess levels of skill in language through the use of tests and bilingual aides whose first language was not English were often sought. No specifications of sex were set for the aide, and no specific ethnic background stated. Consideration of aides with convictions of minor offenses usually caused records to be demanded. A significant conclusion drawn from this study was that "certain characteristics of temperament and personality may be regarded as equally or more important than formal education (Rittenhouse, 1969, p. 32)."

Springfield Public Schools (1969, p. 1) in a proposal for teacher aides in an Elementary and Secondary School Education Act (ESEA) Title I project listed the following qualifications:

1. to demonstrate a sincere interest in children.
2. to possess a pleasing manner and voice.
3. to possess good diction.
4. to show a neat appearance.
5. to be dependable and prompt.
6. to demonstrate a willingness to cooperate with others.
7. to possess good health.
8. to have a high school diploma is desirable, not necessary.

Brunson (1969) in a report on the teacher and his staff in North Dakota supported the following characteristics for teacher aides: cooperation, dependability, quality of work, ability to work with teachers, personal characteristics, clerical skill, enthusiasm, general appearance, adaptability, emotional stability, initiative, resourcefulness, punctuality and attendance, judgment, ability to communicate, speech, and attitute toward job.

Gaines, Allerhand, and Grobsmith (1969) in a Case Western Reserve Teacher Assistant Training Program listed the following characteristics in its pre-selection and the publicity aspect of its program. No high school diploma is required; ability to read fluently at the fourth level for work in grades one through three, and seventh grade level for work in grades four through six; legible handwriting; reasonable proficiency in arithmetic, addition, subtraction and simple multiplication. During the interview prospective aides were frequently asked "to write a paragraph about themselves in order to evaluate handwriting and English usage (Gaines, Allerhand, and Grobsmith, 1969, pp. 5-6)."

The Semiprofessional Training Project (1969) stated that

> . . . college students majoring in primary or secondary education are probably best qualified to work as teacher aides, since their educational background, mental aptitudes, personal attitudes and interests are already centered around educational activities (p. 7).

Greenberg (1967) in a review of literature from 1942 to 1967 on the use of the nonprofessionals as teacher aides, broadly concluded that the concept of the teacher aide was sound and promised to become a potent method for breaking the poverty cycle for those directly involved in the nonprofessional programs. The programs offer more than just jobs; like education they contain powerful intangible benefits.

Andrews' (1967) study of characteristics of paraprofessionals in Arizona, California, Colorado, Nevada, New Mexico, and Utah found no difference in criteria from those previously stated by other writers. Weisz (1967) stated that it is important to consider flexibility, sensitivity to children's needs, self-esteem, acceptance of authority, and ability to cope with a variety of situations, as important factors in screening and selecting aides to work with young children. Holsay (1965, p. 138) added to the Weisz list "enjoy being with children."

In conclusion, studies have been able to identify the characteristics of the teacher aide; not all writers have agreed on specific characteristics of importance; however, many stated that personal qualities were more important than formal education and thus gave most attention to different personal qualities.

Social Work Aides

In the broad field of social work, attempts have been made to use the talents of neighborhood aides and social work aides as auxiliary personnel. The criteria for these two types of aides are not similar. The neighborhood aide is considered as the nonprofessional; whereas the social work aide assistant may have limited formal training in social work procedures and may also have completed some level of formal education. Some characteristics for the nonprofessional may be to have expertise in the program in which he works, to be a reasonably good home manager, to have children in the school which the program serves, and to have some leadership experience (Brager, 1969). Lesh (1966) added to these characteristics that social work nonprofessionals should come from the same community setting as that of the clients being served by the program in which they work. It was further stated that the social work nonprofessional is part of a team. "The greatest intellect is not called for; attitude, maturity, and motivation are more important characteristics sought (Lesh, 1966, p. 10)."

Kestenbaum (1967) reported that for developing aides for service in public and private social institutions, the following characteristics were used; motivation to participate, open to new ideas, good performance on jobs, possible candidates for permanent positions or advancement, over 18 years of age, and can read the newspaper. Costin (1965) reported a project in social work wherein the majority of the 20 social work paraprofessionals had more than two years college or above.

Home Health Aides

The Handbook for Home Health Aide Training (1967) contained do's and don'ts of conduct which may be representative of some characteristics, for example: respect for authority; honest; cheerful; dignified; loyal; courteous; thoughtful; punctual; pleasing voice; careful; respect for others; regard for patient's privacy, welfare, and his personal business.

Klein, Denham and Fishman (1968) and the editors of The Information Clearinghouse on New Careers (1968) concurred with Hiland (1968) who reported that Hoffman found in a Pittsburgh Family and Children's Service Project, that the preprofessionals (aides) showed good judgment, followed directions rendered practical services well, and provided good models for identification. Education was not a requirement; aides had to be personally secure, outgoing, able to bear hostility and anxiety, have previous experience in child care, housing work, hospital or church work, and come from the local community and neighborhood.

Other Types of Aides

Priester (1968) reported the nonprofessionals in a young homemakers program carried out in Alabama had to meet the following criteria in order to be successful. These criteria were: must be homemakers with acceptable homemaking skills, must be empathetic with low-income homemakers, must be able to communicate with others, must have an automobile for use on the job, must be willing to establish an office in his own home, must have a telephone, and must be willing to accept supervision.

Salim and Vogan (1967) discussed selection criteria of the counselor assistant and named the following important characteristics: ability to relate well to youth; concern for and desire to contribute to the positive personal-social development of youth; capacity to assimilate training experiences and apply them; ability to work in a structured setting; and to have broadening experiences as a result of higher education, travel, and community activities.

Otis (1965) and Lesh (1967) discussed criteria of the neighborhood worker and reported the minimal characteristics: an age range to be set by the agency; language skills, including a foreign language; health requirements; previous work experience; have avocational interests; area residence within the neighborhood or community. Education at any specific level is not required; successful aides have had a sixth or seventh grade education. An uneven job history should not be a determinant to being selected; it may be expected that the poor and under-educated will show uneven job histories. Neighborhood aides with interests in working with and relating to other people usually were more successful than those who do not have these interests. Lesh also found that neatness, poise and other related characteristics were considered as superficial traits and not given great emphasis as selection criteria.

Lesh (1967) further stated that the indigenous worker (a person who lives in the immediate neighborhood) usually shares a common background, language, ethnic origin, style and interests with the clients with whom he works, and thus becomes more acceptable to them.

Cohen (1966) reported that an on-the-job training program for semi-professionals in Youth Employment Programs identified the following criteria for trainee selection: above age 22; male or female; no educational requirements; ability to read, write and speak in order to communicate; a desire and ability to work with youth; maturity; self-confidence and an attitude of an adult; motivation as related to acceptance of ideas and situations that result in commitment and involvement; good interpersonal relations; and native intelligence.

In conclusion the characteristics for paraprofessionals of different kinds were numerous and varied. Among some writers there was much agreement, while among others no specific agreement. The general consensus was that there were characteristics which were identifiable. Agreement appeared to give more weight to personal characteristics than educational with the nature of the program or project in which the paraprofessional worked serving as an important controlling factor.

Table 1 is a frequency count of the characteristics discovered in the literature that describes a paraprofessional, aide, assistant or nonprofessional. The number of times each characteristic appeared is given, as well as the total for the characteristics.

Table 1

Frequency Distribution of Characteristics Used for the Selection of Paraprofessional Workers as Found in Selected References

Frequency	Characteristic
42	reading, writing and articulateness
28	type of education (none specified - college education)
19	good physical and mental health
16	maintenance of professional ethics
16	ability to establish good working relationships
14	age specifications (range 16-25)
14	knowledge of or acquire knowledge of specific information and techniques for children
13	ability to be cooperative and to work with others
13	previous experience (unemployed - related experience)
11	response to frustration, hostility, stress
11	knowledge of or can communicate with disadvantaged
10	resident of community suggested
10	arrest conviction record and narcotic addiction (none - each case handled on own merit)
9	ability to work under supervision and respect for authority
8	love and sincere interest in children
8	specified aptitudes (from none to specific)
7	good judgment and common sense
7	self-confidence and self-awareness
7	empathetic and compassionate
7	personal appearance and grooming
6	responsive, alert and adaptable
6	dependability, punctuality, responsibility and reliability
6	ability to do arithmetic and count
5	bilingual or multilingual
5	have a poverty background

(Table continued on next page)

Table 1 (continued)

Frequency	Characteristic
5	enthusiasm and alertness
5	motivation
4	personal characteristics with specification
4	sense of humor
4	relaxed, easy-going, informal
4	references to sex (specified to non-specified)
4	pleasing voice
3	feelings of security
3	warm and responsive
3	out-going personality
3	flexible
3	trainability
3	maturity and emotional stability
3	positive attitude toward job
3	aides required to have children
2	avocational interests and work in leadership of outside groups
2	commitment for advancement, training and employment
2	relieve professional teachers of routines
2	good and legible handwriting
2	ability to research and prepare reports
2	patience
2	references to sex (specific - female)
2	homemaking skill necessary
2	good moral character
2	maturity
2	interest in people
2	initiative
1	realistically aware of limitations
1	resourcefulness
1	majority of aides own home
1	capacity to share problems and concerns
1	neighborliness
1	minority or ethnic status
1	action oriented students
1	have a telephone

(Table continued on next page)

Table 1 (continued)

Frequency	Characteristic
1	uneven job history
1	ability to work within a structured setting
1	have an automobile
1	earthiness
1	well organized
1	approachable
1	U. S. citizen
1	friendly
1	good family background
1	quality and source of replies
1	complete application form
1	considerate and thoughtful
1	cheerful
1	move quietly
1	available 5 hours per day and 5 days per week of school year
1	be thoughtful
1	leadership potential
1	honest
1	pleasant personality
1	few biases
1	positive personal references
1	encourage self-help
1	cannot be punitive
1	cannot be suspicious
1	cannot be overly friendly
1	possess role identity
1	have broadening experience from travel, college, etc.
1	attendance at a classroom aide workshop
1	a sense of orderliness
1	open to new ideas
1	performing well on their jobs
1	ability to have insight into personality problems
1	mobile

N = 418

CHAPTER III

PROCEDURE FOR THE STUDY

The present study was an exploratory field study designed to investigate responses of four groups of subjects in regard to their opinion of the characteristics that make a desirable child care paraprofessional worker, using a Likert-type rating scale. In this study "desirable" referred to being more like a professional child care worker than an untrained paraprofessional worker. The procedure involved in this research included the selection of the subjects, the development of the instrument used to gather data, the categorizing of the items in the instrument, the technique used to present the instrument to the subjects, and the method of analysis used in this investigation.

Subjects

The subjects used in this research were divided into four major groups and each group was obtained differently. The subjects were:

Group I = 67 child development specialists of national reputation

Group II = 197 Head Start Center directors from the Mid-Atlantic Region[1]

Group III = 197 Head Start aides from the Mid-Atlantic Region who have been trained in Greensboro

Group IV = 197 Head Start aides who have not been formally trained

658 total subjects

One group was composed of child development specialists known throughout the United States for their contributions to the literature in child development and for outstanding contributions to the field of research in child development. A total of 67 authorities comprised Group I, selected from persons appearing at the November 1970 meeting of the National Association for the Education of Young Children in Boston, Massachusetts; from the list of persons who appeared before the Select Subcommittee on Education of the Committee on Education and Labor of the House of Representatives of the 91st Congress as it conducted hearings on H. R. 13520, The Comprehensive Preschool Educational Child Day-Care Act of 1969; and from the contributors to leading textbooks and books of readings in the area of child development.

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[1] Kentucky and North Carolina from the Southeast Region of Head Start included in this study will be considered in all references made about the Mid-Atlantic Region.

The second group of subjects were current directors of Head Start Centers in the Mid-Atlantic Head Start Region who have had training at the Head Start Leadership Development Program located on the campus of The University of North Carolina at Greensboro. The Mid-Atlantic Region has 197 Head Start Centers, therefore the total number of subjects in this group was 197.

The third group of subjects was 197 Head Start Aides who worked in the Mid-Atlantic Region at the Head Start Centers under the direction of the aforementioned directors. These Head Start aides also had training at the Mid-Atlantic Head Start Leadership Development Program located on the campus of The University of North Carolina at Greensboro. These aides were selected by their directors, who made up Group II.

The fourth group of 197 subjects was selected by the aforementioned directors of the Mid-Atlantic Head Start Region using the following criteria: these 197 aides worked in Head Start Centers in the Mid-Atlantic Region under the direction of the directors in Group II, but this group of aides had no formal training except the usual in-service Head Start training found in each local program.

Contact was made with the Director of the Mid-Atlantic Head Start Leadership Development program located on the campus of The University of North Carolina at

Greensboro to secure official clearance from both the Leadership Development Program Office and the Mid-Atlantic Regional Office, in order to permit release of names and addresses for the subjects in groups two, three, and four. Permission for the study was also granted by the Southeast Regional Office of Head Start.

Development of the Scale

A Likert-type scale comprised of characteristics considered in human service aides, teacher aides, child care aides, home health aides, social work aides, neighborhood youth program aides, and other para-professionals was developed for this research.

A Likert-type scale was selected for this research because its method lends itself to the type of research involved in this study. According to Kerlinger (1964), the summated rating is composed of a set of attitude items of approximately equal attitude value. Subjects can respond to these items with degrees of agreement or disagreement and as a result be placed on an agreement continuum of the attitude under study. The Likert-type scale has two major characteristics which makes it advantageous to use: (1) the Universe of items is considered to be a set of items of equal attitude value, thus there is no scale of items, each item is the same as any other item in value. The respondents are scaled through use of the sums or averages of individual responses. (2) Intensity of attitude is expressed through this summation of ratings. A subject can express varying levels of agreement. The use of five or seven response categories allows greater variance than if only two or three categories existed. A scale such as the Likert-type has advantages useful to research such as that involved in this project.

The Mazyck Rating Scale for Paraprofessionals (MRSP).

A review of the literature on paraprofessionals provided a large number of characteristics, shown in Table 1, which have been used to describe the paraprofessional, aide, assistant, or nonprofessional in a variety of fields in which human services have been provided. The characteristics shown in Table 1 having a frequency of two or more were selected for inclusion in the scale. A further breakdown of these characteristics was made so that each item in the scale would involve only one characteristic. The scale included 46 separate items which were randomly placed. Each item was stated as a short, simple, concise sentence to be rated on a five point scale ranging from Strongly Agree, Agree, Undecided, Disagree, to Strongly Disagree. Each respondent was asked to mark his opinion on each statement by making a cross (X) in the parentheses in the proper column that follows the statement. Attached to each rating scale was a short personal data sheet to be completed by the respondent. (See Appendix A for a copy of the rating scale, and Appendix C for a copy of the personal data forms.)

Selection of the Items and Categories for the MRSP.

In order to prepare the scale of 46 items, the following steps were taken:

1. A list of characteristics was made from Table 1, Frequency Distribution of Characteristics Used for the Selection of Paraprofessional Workers as Found in Selected References. The items selected had a frequency of two or more. Any characteristic involving more than one significant idea was separated into two or more individual items. A list of 78 items was derived from this procedure (Appendix B).
2. A group of six judges was given the previously described list of characteristics. These judges were three people who were considered professional child care specialists by virtue of their training and three persons who worked as aides in a child care project which received federal funds.
3. A packet of index cards, a direction sheet, and a definition for each of four categories was given

each judge. The instructions to the judge stated that each card should be placed in one of the four categories, personal-social, biographical, educational, and working relationships. The definitions defined operationally each category (Appendix B).

4. The judges were asked to perform the categorizing of the items twice in order to establish interjudge reliability.
5. A record was made of each judges' categories. The tally of results showed each category into which a judge placed each of the 78 items on two separate trials spaced more than two days apart. An assessment of the two trials was made to find out the items on which the judges in trial one and trial two agreed a minimum of 66 percent of the time on any one item. This assessment yielded 47 items on which agreement in both trials existed at a minimum of 66 percent.
6. In order to simplify categories and the understanding of categories, the categories on Educational, Biographical and Working Relationships were collapsed into one category.
7. The categories of the scale were then designated as Category I, Personal-Social; and Category II,

Educational-Biographical-Working Relationships. The Personal-Social Category contained 23 items and the Educational-Biographical-Working Relationships Category contained 24 items.

8. Through random selection one item was dropped from the Educational-Biographical-Working Relationships Category. The full scale contained 23 items in each category for a total of 46 items.

The panel of judges was used to establish the validity of the scale through interjudge agreement. The judges established agreement on 46 items from the original list of seventy-eight items, by agreeing that these items fell into one of four categories.

Procedures Used in Administering the MRSP to Subjects

The Mazyck Rating Scale for Paraprofessionals (MRSP) was prepared in mimeographed form. A first page of directions was included, and a personal data sheet was attached to the scale. The directions were short, simple and to the point, as was the personal data sheet.

The instructions and the rating scale were the same for all four groups of respondents. However, the personal data sheet was different for the child development specialists, the directors, and the aides. The color of paper used for the instrument with the four groups was different. The distinguishing colors were as follows: for the child development specialists, white; for the directors, yellow; for the aides with training, blue; for the aides without training, pink.

In addition, each scale and personal data sheet was mailed with a self-addressed stamped envelope included for return mail. A special letter was sent along with the scale describing the details of the project and the reason the respondents were being asked to participate. The letters were different for the child development specialists and for the directors. The letters for the directors included information on the administration of the MRSP to the aides (see Appendix D).

Three weeks from the date the letters were mailed, a follow-up letter was then sent to the subjects reminding them of the urgency of the research in progress and requesting them to return their rating scales and personal data sheets immediately. Letters were sent to 138 Head Start directors and 37 child development specialists. The follow-up attempt increased the number of returns to 65.80 percent. Returns received after this date were not counted in the statistical analysis. (See Appendix for copies of follow-up letters.)

Method of Analysis

The computer program selected for statistical analysis was the Statistical Analysis Systems (SAS). Data from the responses of subjects to the MRSP were analyzed using factor analysis, and multivariate analysis of variance. The data were considered by items, categories (Personal-Social, Educational-Biographical-Working Relations), and by groups (child development specialists, child care program directors, trained paraprofessionals, and untrained paraprofessionals). The personal data sheets were analyzed using sums, means, and percentages.

CHAPTER IV

ANALYSIS OF DATA

The analysis of the data for this investigation was completed with the assistance of Dr. Charles H. Proctor and the use of the Statistical Analysis Systems computer program at North Carolina State University at Raleigh.

The discussion of the data obtained from this investigation incorporated numerous tables. Most of the tables presented included frequencies for individual items as well as totals of frequencies. The frequency total used showed only the number of subjects who responded to the items. No non-responses were included in any statistics reported. The total number of respondents in each group was: 36 child development specialists, 127 untrained paraprofessionals, 93 trained aides, and 134 child care program directors. Many subjects did not choose to answer all of the questions in the total instrument for reasons that the investigator was not able to explain.

Analysis of Data from the MRSP Administered to Four Groups of Subjects

A one way multivariate analysis of variance (MANOVA) was completed on the four groups of subjects and the two major categories under investigation, Personal-Social (PS) and Education-Biographical-Working Relationships (EBW), and a third category which was identified from the statistical study of the data. The third category was named Reaction to Stress (RS).

In the one way MANOVA the F value showed a significant F at the .0001 level of confidence. There was a significant difference between the Groups (Child Care Directors, Trained Aides, Untrained Aides, and Child Development Specialists) and Category I (Personal-Social), see Table 2. A MANOVA on the four Groups and Category II (Educational-Biographical-Working Relationships) also showed a significant difference at the $p < .0001$ level of confidence with a significant F (see Table 3). In the third Category (RS) a significant relationship at the $p < .0001$ level of confidence was observed between the Category and the four Groups (see Table 4).

Table 2

Multivariate Analysis of Variance for Dependent Variable PS

Source	df	SS	MS	F	Probability < F
Groups	3	2447.99	815.99	10.60	.0001
Within	386	29705.61	76.96		
Total	389	32153.60			

Table 3

Multivariate Analysis of Variance for Dependent Variable EBW

Source	df	SS	MS	F	Probability < F
Groups	3	1660.25	553.41	12.46	.0001
Within	386	7144.51	44.41		
Total	389	18804.76			

Table 4

Multivariate Analysis of Variance for Dependent Variable RS

Source	df	SS	MS	F	Probability < F
Groups	3	508.12	169.37	24.766	.0001
Within	386	2639.79	6.84		
Total	389	3147.91			

There were significant differences with which the four groups of subjects looked at the categories of characteristics, both the original categories in the study and the category which grew out of the analysis of data.

A study of the means of each group separately and in combination with each other revealed some differences on which speculations were made. Table 5 shows the means for the Groups and Categories. Table 6 shows the combined means and t test results.

Table 5

Comparison of Means for Groups by Categories

Groups	N	Means PS	Means EBW	Means RS
(1) Directors	134	99.5970	36.4552	19.2687
(2) Trained Aides	93	99.8602	40.5699	19.0215
(3) Untrained Aides	127	101.0157	41.0236	18.3465
(4) Child Development Specialists	36	91.7778	37.8889	22.5833

A study of these means and the application of t tests gave the following results: A t test of means in the PS category compared Untrained Aides with Directors and Trained Aides gave a value of 1.28 which was not significant. Differences were readily observed between the Child Development Specialists and each of the other groups in the PS Category. In the PS Category, data implied that of the four groups, the Child Development Specialists put least emphasis on this category. The Untrained Aides put most emphasis on the PS Category, however it was not significantly different from the emphasis given this category by the Child Care Program Directors and the Trained Aides. The data showed the emphasis in this Category by the Child Care Program Directors and Trained Aides to be the same.

In the EBW Category the data showed no differences in emphasis placed on the category by the Trained Aides and the Untrained Aides. However, when the means of Child Care Program Directors and Child Development Specialists were combined and then compared with the combined means of the Trained Aides and the Untrained Aides, a highly significant t resulted.

Table 6

The Combined Means and t Test Results by Categories

PS Category: $M_3 - (M_1 + M_2) = t\ 1.28$

EBW Category: $M_1 - M_4 = t\ 1.14$

$(M_1 + M_4) - (M_2 + M_3) = t\ 4.683^*$

* significant ($p < .01$)

In Category EBW it was observed that the Aides, trained and untrained, emphasized this category more than either the Child Care Program Directors or the Child Development Specialists. These results implied that the Aides were more stringent in their concern for educational, biographical, and working relationships characteristics than Directors or the Specialists.

In the Third Category, RS, there were no significant differences between the means of the Directors, the Trained Aides, and the Untrained Aides. There was a significant difference between the Child Development Specialists and all other groups. A suggested implication was that these specialists understand the wording or meaning of these items better than the other subjects who responded to the MRSP. A clear interpretation was difficult to make on this Category. Consideration of significance of the categories was best observed in the relationship between categories originally designated for this study.

Analysis of the Composition of the Categories

The original breakdown of the items in the MRSP into the Personal-Social Category and the Educational-Biographical-Working Relationships Category as designated by the investigator was shown in Table 7.

Table 7

Items in the Original Categories of the MRSP

Personal-Social Category		Educational-Biographical-Working Relationships Category	
Q1	finds frustration undesirable	Q3	is dependable if he plans to progress in his work
Q2	has a sense of humor at all times	Q6	demonstrates his communicative skills through his abilities in reading and writing
Q4	needs patience in work with children	Q7	resides in the community in which he works
Q5	has difficulty in carrying out continuous displays of enthusiasm	Q8	is between the ages of 25 and 35

(Table continued on next page)

Table 7 (continued)

Personal-Social Category	Educational-Biographical-Working Relationships Category
Q10 shows adult hostility when it is necessary	Q9 has ability to work with others
Q11 loves children	Q12 has skill in arithmetic and counting
Q14 has secure personal feelings	Q13 has a two-year college education
Q15 possesses personal warmth	Q18 is only cooperative in his work with others who are professionals
Q16 demonstrates his responsiveness through his ability to stimulate a group	Q20 is over 35 years old
Q17 is a good homemaker	Q22 may be any age
Q19 has good moral character	Q23 is a female
Q21 is well groomed	Q24 is 60 years old or over
Q25 must exhibit self-confidence	Q29 has children of his own
Q26 needs to have many non-specific personal characteristics	Q30 has a high school education
Q27 must be able to adapt to all situations	Q31 could be either male or female
Q28 feels the idea of having sincere interest in children is over-emphasized	Q32 is punctual in going to task when he is supposed to
Q35 has an outgoing personality	Q33 has good physical health

(Table continued on next page)

Table 7 (continued)

Personal-Social Category	Educational-Biographical-Working Relationships Category
Q36 is a mature person	Q34 works best under the supervision of professional child care specialists
Q38 exhibits a pleasant speaking voice	Q37 gains specific knowledge about children through formal education
Q39 finds demonstrations of outward reactions to stress in child care situations undesirable	Q42 relieves the professional child care specialists of the routine tasks
Q40 shows compassion in his interpersonal relations at all levels	Q43 has an eighth grade education
Q41 has outside interests	Q44 has a positive attitude toward work
Q46 possesses common sense	Q45 has good working relations in all child care situations

A factor analysis of the total items (46) on the MRSP showed a different breakdown of items for the two original categories, Personal-Social, and Educational-Biographical-Working Relationships, than that which was purposed by the investigator. Factor loadings from the factor matrix provided the data which are shown in Table 8.

Table 8

Factor Loadings of the First, Second, and Third Factors Used to Designate Categories on the MRSP

Item	Factor Loading 1	2	3	Categories
Q1	.23736	.09439	-.33993	Third
Q2	.37059	.06268	.13286	PS
Q3	.42072	.03597	-.01612	PS
Q4	.35000	-.21812	-.02148	PS
Q5	-.17044	.15635	.33548	Third
Q6	.20401	.52846	.06276	EBW
Q7	.25386	.33888	.18460	EBW
Q8	.04008	.51389	-.00676	EBW
Q9	.45453	-.20758	.10682	PS
Q10	-.16744	.08265	.43048	Third
Q11	.62329	-.03859	-.19029	PS
Q12	.25467	.44681	.11569	EBW
Q13	.06069	.49062	.24073	EBW
Q14	.52707	-.21590	.11933	PS
Q15	.51373	-.33665	.12354	PS
Q16	.46901	.12081	-.11540	PS
Q17	.49995	.39463	-.11835	PS
Q18	-.15779	.47980	.18484	EBW
Q19	.59485	.18611	-.12513	PS
Q20	-.04617	.50778	.21080	EBW
Q21	.61078	.19618	-.17867	PS
Q22	.06390	-.26451	.34532	Third
Q23	-.05234	.60993	-.01168	EBW
Q24	-.15460	.29246	.07580	EBW
Q25	.61330	.01028	-.13371	PS
Q26	.29069	.01805	.16690	PS
Q27	.55137	.13958	-.17986	PS
Q28	-.34481	.44363	.18573	EBW
Q29	.10998	.53492	-.00517	EBW
Q30	.21280	.51792	.09427	EBW
Q31	.09906	-.50231	.35563	Third
Q32	.46961	-.13534	.22379	PS
Q33	.59168	-.00232	.09992	PS
Q34	.08936	.29596	.35671	EBW
Q35	.62631	.06764	-.15959	PS
Q36	.54367	-.07750	.12165	PS
Q37	.19124	.38358	-.00525	EBW

(Table continued on next page)

Table 8 (continued)

Item	Factor Loading 1	2	3	Categories [a]
Q38	.61014	.07387	-.12357	PS
Q39	.08637	.04581	-.29652	Third
Q40	.44525	-.17031	.25526	PS
Q41	.43082	-.15319	.12118	PS
Q42	.32900	.26579	.02150	EBW
Q43	.24841	.13695	-.12332	PS
Q44	.52538	-.25916	.22370	PS
Q45	.66119	-.01473	.05874	PS
Q46	.49028	-.30219	.25101	PS

[a] Categories

PS	Personal-Social
EBW	Educational-Biographical-Working Relationships
Third	Reaction to Stress (RS)

In Table 8 it was observed that as a result of the factor loadings in the factor analysis, some of the items changed from Personal-Social to the new Third Category (Reaction to Stress), while others moved from the Personal-Social to Educational-Biographical-Working Relationships Category. The reverse of this category change was also observed. The third category Reaction to Stress was developed from items with high loadings on the third factor or some other of the factors four through fourteen. These items fitted neither of the original categories, Personal-Social or Educational-Biographical-Working Relationships, but developed into a new category which was named Reaction to Stress, since the largest number of scale items in the factor related to stressful situations. The categories were determined by factor matrix loadings. Subsumed under factors were items which were placed together forming categories. Rotated factor matrix analysis determined the naming of the factors.

Naming the Factors in the Analysis

The factor analysis completed in this study developed 14 basic underlying factors from the 46 scale items in the Mazyck Rating Scale for Paraprofessionals. These factors are named in Table 9.

Table 9

The Named Factors in the Factor Analysis and the Scale Items Found in Each Factor

Factor Name	Scale Items	Justification of Name Dependent on Factor Loadings .50+ on Rotated Factor Matrix
1. General Personal Qualities	19,21,25, 33,35,38	Yes. Verified by lower loadings.
2. Demographic Factors	7,8,29,30	Yes. Verified by lower loadings.
3. Unnamed	3	No.
4. Educational Qualifications	6,12	Yes. Verified by lower loadings.
5. Temperamental	13,34	Yes. Verified by lower loadings.
6. Maturity	20,24	Yes. Verified by lower loadings.

(Table continued on next page)

Table 9 (continued)

Factor Name	Scale Items	Justification of Name Dependent on Factor Loading .50+ on Rotated Factor Matrix
7. Work Effectiveness	3,4	Yes. Verified by lower loadings.
8. Frustrating Situations	1,39	Yes. Verification questionable.
9. Unnamed	10	No. No supporting data.
10. Unnamed	26	No. No supporting data.
11. Positive Work	32,44,46	Yes. Verification strong with lower loadings.
12. Feelings of Security	14,15	Yes. Verification strong with lower loadings.
13. Unnamed	43	No. Supporting data questionable.
14. Unnamed	None	No. Supporting data questionable.

As was stated earlier statistical analysis of the Mazyck Rating Scale for Paraprofessionals developed three categories. The analysis formulated the three Categories with the items for each part as shown in Table 10. The Third Category was primarily composed of items from the scale which implied reaction to stress producing situations, thus the name of the category Reaction to Stress (RS). See Appendix H for the rotated factor matrix.

Table 10

Division of Items on the MRSP into Categories as a Result of Factor Analysis

Personal-Social			Educational-Biographical-Working Relationships		Reaction to Stress
Items			Items		Items
Q2	Q17	Q35	Q6	Q24	Q1
Q3	Q19	Q36	Q7	Q28	Q5
Q4	Q21	Q38	Q8	Q29	Q10
Q9	Q25	Q40	Q12	Q30	Q22
Q11	Q26	Q41	Q13	Q34	Q31
Q14	Q27	Q43	Q18	Q37	Q39
Q15	Q32	Q44	Q20	Q42	
Q16	Q33	Q45	Q23		
		Q46			

Multiple Correlational Analysis

Multiple correlations were completed using three groups of subjects, namely Child Care Program Directors, Untrained Aides, and Trained Aides. Child Development Specialists were not included in the correlational analysis since the data used in the analysis was not available on the Specialists.

The multiple correlations each used the same data: gender, age, amount of college training, years in child care work, the statistically derived personal-social category, the original personal-social category, and the original educational-biographical-working relationships category (see Tables 11, 12, and 13).

Table 11

Child Care Directors

Multiple Correlation of Selected Personal Data with Categories Originally Determined and Statistically Determined

	1	2	3	4	5	6	7	8	9	Mean	S.D.
1 Gender		-.114	.241	.372*	.059	.137	-.078	.077	.110	1.310	.465
2 Age			-.249	-.371*	-.032	-.000	.152	.016	-.012	5.023	1.735
3 College Training				.296*	.008	-.078	-.061	-.059	-.016	4.726	.766
4 Child Care Work Experience					.041	-.003	.099	.067	.024	3.619	2.082
5 PS Category						.149	-.189	.928*	.524*	99.690	9.729
6 EBW Category							-.319*	.262	.878*	36.690	6.651
7 Third Category								.144	-.276*	19.238	2.714
8 Original PS									.561*	87.214	7.216
9 Original EBW										72.155	7.308

*(N = 84; df 82; .267 = p < .01)

Table 12

Trained Aides

Multiple Correlation of Selected Personal Data with Categories Originally Determined and Statistically Determined

	1	2	3	4	5	6	7	8	9	Mean	S.D.
1 Gender		.031	.105	-.077	-.118	.154	-.022	-.038	.004	1.044	.208
2 Age			.299	.170	.014	.110	.015	.087	.130	4.267	1.657
3 College Training				.224	.130	.101	-.052	.224	.066	.956	1.127
4 Child Care Work Experience					-.079	-.215	-.026	-.087	-.126	4.178	1.922
5 PS Category						.409*	.059	.920*	.709*	102.622	9.480
6 EBW Category							.179	.483*	.893*	40.178	8.843
7 Third Category								.084	.216	19.222	2.173
8 Original PS									.714*	89.378	7.915
9 Original EBW										76.333	8.132

*(N = 45; df 43; .372 = p < .01)

Table 13

Untrained Aides

Multiple Correlation of Selected Personal Data with Categories Originally Determined and Statistically Determined

	1	2	3	4	5	6	7	8	9	Mean	S.D.
1 Gender		.077	-.069	-.023	.258	.052	.113	.259	.110	1.016	.127
2 Age			.195	.310	-.030	-.259	.116	-.131	-.173	4.048	1.593
3 College Training				.106	.291	.142	.049	.278	.262	.548	1.019
4 Child Care Work Experience					.022	.015	.002	-.042	.026	3.323	1.827
5 PS Category						.274	.013	.881*	.568*	102.371	7.318
6 EBW Category							.054	.353*	.890*	41.242	6.794
7 Third Category								.135	.101	18.711	2.433
8 Original PS									.561*	89.758	6.603
9 Original EBW										76.806	7.270

*(N = 62; df 60; .325 = p < .01)

The multiple correlations showed high relations between the statistically derived Personal-Social category and the original Personal-Social category in the three groups. High relationships were observed between the statistically derived Educational-Biographical-Working Relationships category in each of the three groups. These high relationships pointed out that there was similarity between the two original categories and the two statistically derived categories that were developed from the factor loadings on a rotated factor matrix. The high correlations pointed out that the categories had been well specified on the MRSP. All between category relationships involving combinations of original categories with statistically derived categories were high, i.e. without using the statistically derived third category. The statistically derived third category gave either negative or low correlations in the three groups. Little relationship or no relationship was shown between this category and the other categories, or between this category and other items in the intercorrelations. The correlation between the statistically derived PS and EBW categories was high for the trained aides, but for no other group. The correlation was close to the critical point, thus its significance was questionable. The remainder of the interrelationships among the other items in the intercorrelations for the three groups showed negative or low correlations, implying little or no relationship among the items selected for measurement of interrelationships. Gender, age, college training, years in child care work, statistically derived personal-social category, statistically derived educational-biographical-working relationships category, and the statistically derived third category have little or no relationship among themselves. The high relationships occurred between the categories but not including the third category. This relationship occurred in all three groups on the measures that were correlated.

Analysis of Personal Data

Personal data on the four groups of subjects were similar in some aspects, but different in many areas. The data for the four groups were compared in five areas: gender, marital status, parents of children, parents of children under age six, and age range. These questions were asked of all subjects in the investigation through the use of a personal data sheet attached to the MRSP. Tables 14 through 18 show the findings.

Table 14

Analysis of Personal Data by Gender

	Female	Percent	Male	Percent
Child Development Specialists	16	44.444	20	55.556
Untrained Aides	123	96.850	4	3.150
Trained Aides	88	95.652	4	4.348
Directors	99	73.881	35	26.119
Totals	326		63	

Note: Different N's were recorded because all respondents did not answer all questions.

Table 15

Analysis of Marital Status

Group	Marital Status[a] 1	2	3	4	5	6	7	8	9	10
Child development Specialists	4	11.111	30	83.333	0		1	2.778	1	2.778
Untrained Aides	15	11.811	84	66.142	6	4.724	17	13.386	5	3.937
Trained Aides	12	13.043	58	63.043	3	3.261	13	14.130	6	6.522
Directors	32	23.881	86	64.179	5	3.731	2	1.493	9	6.716
Totals (N)	63		258		14		33		21	

Note: Different N's were recorded because all respondents did not answer all questions.

[a] Marital Status:

1 Single
2 Percent single
3 Married
4 Percent married
5 Divorced
6 Percent Divorced
7 Separated
8 Percent separated
9 Widowed
10 Percent widowed

Table 16

Subjects Who Were Parents

	Number Having Children			
Group	Yes	Percent	No	Percent
Child Development Specialists	30	85.714	5	14.286
Untrained Aides	110	88.000	14	12.000
Trained Aides	83	90.217	9	9.783
Directors	88	67.692	42	32.308
Totals (N)	311		70	

Note: Different N's were recorded because all respondents did not answer all questions.

Table 17

Subjects With Children Under Age Six

Group	Number of Children 0	1	2	3	4	5	Totals
Child Development Specialists	18	7	2				27
Percent	66.667	25.926	7.407				
Untrained Aides	29	34	8	4		1	76
Percent	38.158	44.737	10.526	5.263		1.316	
Trained Aides	31	15	8	1	1		56
Percent	55.357	26.786	14.286	1.786	1.786		
Directors	47	11	1	1			60
Percent	78.333	18.333	1.667	1.667			
Total (N)							219

Note: Different N's were recorded because all respondents did not answer all questions.

Table 18

Age Range of Subjects

Group	16-20	21-25	26-30	31-35	36-40	41-45	46 and over
Child Development Specialists		1	4	9	4	4	15
Percent		2.941	11.765	26.471	11.765	11.765	44.118
Untrained Aides	9	12	30	21	16	16	8
Percent	7.627	10.169	25.424	17.797	13.559	13.559	6.780
Trained Aides	3	11	21	13	8	8	12
Percent	3.371	12.360	23.596	14.607	8.989	8.989	13.483
Directors		9	12	20	23	23	44
Percent		6.818	9.091	15.152	17.424	17.424	33.333
Total Subjects (N)	12	33	68	67	63	51	79

Note: Different N's were recorded because all respondents did not answer all questions.

The Tables 14 through 18 are self-explanatory, however some highlights were necessarily pointed out. As expected there was a much larger number of women than men. Traditionally, child care was thought as woman's work, this sample was no exception (see Table 14). Almost two-thirds of the subjects in the investigation were married, while the other third was almost equally distributed - one-half single, and the other half were divorced, separated, or widowed (see Table 15).

Further investigation of the personal data common to the four groups showed that almost as many subjects had children under six years of age as had no children under six (see Table 17). These data when compared with data on parenthood revealed that most of the parent subjects had children older than six years of age. More specifically, the children the subjects cared for were younger than the subjects' own children.

For this study, more of the subjects were over 46 years of age than any other single age range, however over one-half of the subjects were between 26 and 40 years of age. The percentage of age was observed throughout the ranges for the four groups and it was found that the child development specialists were the older subjects. There were more younger untrained aides among the subjects. The trained aides were younger than the directors.

The aides, both trained and untrained, had the same kind of educational background. It appeared that the amount of formal education of the aides in this study made no difference as to whether they were a trained paraprofessional or an untrained paraprofessional. Examination of the percentages of these two groups of subjects who had engaged in more years of education showed that more of the trained subjects had actually engaged in academic pursuits for a larger number of years.

Graduation from high school made no real difference between the trained and the untrained aide. This was expected since the two groups of subjects had the same mean number of years of total high school education, Table 19.

Table 19

Comparison of Two Groups of Aides on Educational Attainment

Graduated from high school	Trained Aides	Percent	Untrained Aides	Percent
Graduated	57	70.370	80	68.376
Did not graduate	24	29.630	37	31.624
Totals (N)	81		117	

Note: Different N's are recorded because all respondents did not answer all questions.

Table 20

Comparison of Two Groups of Aides According to Years in Child Care Work

Years in Child Care Work	Trained Aides	Percent	Untrained Aides	Percent
1 - 6 months	4	4.598	28	23.729
7 -12 months	19	21.839	25	21.186
2 years	12	13.798	21	17.797
3 years	19	21.839	13	11.017
4 years	19	21.839	14	11.864
5 years	6	6.897	8	6.780
6 years	2	2.899	7	5.932
7 years	6	6.897	2	1.695
Totals (N)	87		118	

Note: Mean years in child care work for each group: 3.5.

Different N's were recorded because all respondents did not answer all questions.

The two groups of aides shared the same mean number of years working as a child care aide, 3.5 years. However, it was observed that more untrained aides had been on their jobs one year or less, and more trained aides had been on their jobs four years or less, Table 20.

Personal data gathered in this investigation did not show the two groups of aides as different kinds of individuals.

Personal data comparing the two groups of aides with the child care program directors was completed taking into consideration only those areas not compared earlier in the study.

Table 21

Comparison of Two Groups of Aides and Child Care Directors on Selected Personal Data

Graduation from High School	Trained Aides	Percent	Untrained Aides	Percent	Directors	Percent
Graduated	57	70.370	80	68.376	126	100.000
Did not graduate	24	29.630	37	31.624		
Totals (N)	81		117		126	

All of the directors in this study graduated from high school compared to 70 percent of the trained aides and 68 percent of the untrained aides (see Table 21). This finding showed that the directors had more education than the aides. The implication was that the more education acquired the better the chances for a directorship. Especially was this suspected when the study provided data which showed over 75 percent of the child care directors with at least three years college education. Over 50 percent of the education was in the areas of Elementary/ Early Childhood Education, Home Economics, and Child Development and Family Relations (Table 22).

Table 22

Areas of College Training of Child Care Program Directors

Area	Frequency	Percent
Elementary/Early Childhood Education	47	39.167
Secondary Education	7	5.833
Child Development/Family Relations	5	4.167
Sociology	8	6.667
Physical Education	3	2.500
Home Economics	14	11.667
Nursing	3	2.500
Other Areas	33	27.500
Total (N)	120	

The years in child care work were compared for the untrained aides, trained aides, and child care program directors (see Table 23). The median number of years for length of time in child care work for each of the three groups was different. As training increased, experience in child care work increased. The untrained aides had the least amount of child care work experience, while the directors had the most experience.

Table 23

Comparison of Two Groups of Aides and Child Care Program Directors in Relation to Years in Child Care Work

Years in Child Care Work	Trained Aides	Percent	Untrained Aides	Percent	Directors	Percent
1 - 6 months	4	4.598	28	23.729	3	2.679
7 -12 months	19	21.839	25	21.186	20	17.857
2 years	12	13.793	21	17.797	7	6.250
3 years	19	21.839	13	11.017	19	16.964
4 years	19	21.839	14	11.864	13	11.607
5 years	6	6.897	8	6.780	13	11.607
6 years	2	2.299	7	5.932	7	6.250
7 years	6	6.897	2	1.695	30	26.786

Note: The median number of years was computed for each group. The trained aide, 3.4 years; untrained aide, 2.4 years; directors, 4.5 years.

Specific Personal Data on Child Development Specialists

Certain information provided by the personal data from the child development specialists was different enough from the data derived from the two groups of aides and the child care program directors that it was analyzed separately (Tables 24 through 30). These tables are self-explanatory and need no specific comments on each. The child development specialists in this study had been engaged in their various areas of specialization as many as 41 years, however the median years were 15. Some of these specialists have had no experience with children under six, while one had over 46 years experience. The median years experience in work with children under age six was 8.5. More than one-fourth of the child development specialists in this study had no experience supervising paraprofessionals, while the median years experience was 6.4. Eleven percent of this group of subjects had supervised paraprofessionals for 16 to 25 years. Over 65 percent of these specialists had worked with children under the age of six during the last five years, and 34 percent had not engaged in such work. This same percentage of specialists had worked with paraprofessionals during the past five years and the same percentage had not done such work. Over 75 percent of the specialists had obtained the doctorate degree. All these data picture the specialists as being well-educated, with considerable experience in their special fields. Many have spent numbers of years working with young children and supervising paraprofessionals, but the average specialist in this study had spent less than ten years doing either (see Table 29).

Table 24

Child Development Specialists' Area of Specialization

Area	Frequency	Percent
Child Development	15	41.667
Psychology	8	22.222
Early Childhood Education	4	11.111
Social Work	2	5.556
Other unnamed areas	7	19.444
Total (N)	36	

Table 25

Child Development Specialists' Experience in Area of Specialization

Years	Frequency	Percent
5 - 10 years	10	27.778
11 - 15 years	8	22.222
16 - 20 years	5	13.889
21 - 25 years	7	19.444
26 - 30 years	2	5.556
31 - 35 years	2	5.556
36 - 40 years	1	2.778
41 or more years	1	2.778
Total (N)	36	

Note: The median years in specialization was 15.

Table 26

Child Development Specialists' Work Experience with Children Under Age Six

Years	Frequency	Percent
No experience	3	8.572
1 - 3 years	3	8.572
4 - 6 years	8	22.857
7 -10 years	7	20.000
11 -15 years	8	22.857
15 -25 years	2	5.714
26 -35 years	2	5.714
36 -45 years	1	2.857
46 years and over	1	2.857
Total (N)	35	

Note: The median years of experience with children under age six was 8.5.

Different N's were recorded because all respondents did not answer all questions.

Table 27

Child Development Specialists' Experience Supervising Paraprofessionals

Years	Frequency	Percent
No experience	9	26.471
1 - 5 years	7	20.588
6 - 10 years	12	35.294
11 - 15 years	2	5.882
16 - 25 years	4	11.765
Total (N)	34	

Note: The median years of experience supervising paraprofessionals was 6.4.

Different N's were recorded because all respondents did not answer all questions.

Table 28

Child Development Specialists' Work with Children Under Age Six in Last Five Years

Response	Frequency	Percent
Yes	23	63.714
No	12	34.286
Total (N)	35	

Note: Different N's were recorded because all respondents did not answer all questions.

Table 29

Child Development Specialists' Work with Paraprofessionals in Last Five Years

Response	Frequency	Percent
Yes	23	65.714
No	12	34.286
Total (N)	35	

Note: Different N's were recorded because all respondents did not answer all questions.

Table 30

Highest Degree Attained by the Child Development Specialists

Degree	Frequency	Percent
Bachelors	1	2.778
Masters	5	13.889
Doctor of Philosophy	26	72.222
Doctor of Education	2	5.556
Other varied degrees	2	5.556
Total (N)	36	

Summary of Findings

This investigation had as its major purpose the study of characteristics of paraprofessionals in order to determine if there were characteristics, as well as categories of characteristics that were distinguishable. The findings may be stated as follows:

1. Characteristics which were designed and placed into the Mazyck Rating Scale for Paraprofessionals were divided into two categories that purposed to distinguish the trained paraprofessional, the untrained paraprofessional, the child care director, and the child development specialist. There were significant differences found in a comparison of the four groups of subjects.

2. An analysis of factor loadings by factor analysis showed that the MRSP distinctly had categories (Personal-Social and Educational-Biographical-Working Relationships) as purposed by the investigator. Factor analysis by way of rotated factor matrix loadings verified these categories and statistically derived a third category which the investigator named Reaction to Stress.

3. The F tests on the three categories Personal-Social, Educational-Biographical-Working Relationships, and Reaction to Stress were significant when compared by groups with $p < .0001$.

4. Examination of the means of the four groups of subjects in regard to their relationships with the three categories using t tests showed no significance when untrained aides were compared with the combination trained aides and directors on the Personal-Social category. The child develoment specialists accounted for the significant difference in the way the subjects rated the Personal-Social category.

In the Educational-Biographical-Working Relationships category a t test applied to means of the Child Care Directors compared with the Child Development Specialists showed no significance. When the mean of Child Care Program Directors was added to that of the Child Development Specialists and then compared with the means of the trained aides and the untrained aides added together, a highly significant t was obtained, significant at the $p < .01$ level of confidence. In the groups the Child Development Specialists made the difference, the other groups of aides and the child care directors were similar.

The means of the subjects in relation to the third category (Reaction to Stress) were not significant for the subjects except for the Child Development Specialists who appeared to have accounted for all the significant difference. This mean seems more representative of a unique artifact of the MRSP than any other difference. It may be concluded that the Child Development Specialists read and understood the items that fell in the statistically derived third category better than any of the other groups of subjects.

5. This study as a result of rotated factor matrix analysis identified 14 categories, nine of which were worthy of consideration by this author in characterizing a paraprofessional. These factors were:

General Personal Qualities
Demographic Facts
Educational Qualifications
Temperamental Traits
Maturity
Work Effectiveness
Frustrating Situations
Positive Work Attitudes
Feelings of Security

6. The factor analysis produced rotated factor matrix loadings which suggested a different arrangement of the items of the MRSP into three categories rather than the original two.

7. Multiple correlations of nine selected factors for three groups of subjects, untrained aides, trained aides, and child care program directors showed high relationships only between original categories and

statistically derived categories and all combinations of these categories. The statistically derived third category was not included in the high relationships. Relationships among all other factors intercorrelated was exceedingly low or did not exist. The factors selected for the intercorrelations were traditional; such as age, gender, and college training, but these factors did not seem to have any relationship as far as the subjects in the three groups correlated were concerned. There was exceedingly great similarity between the untrained aides, the trained aides, and the child care program directors.

CHAPTER V

SUMMARY AND CONCLUSIONS

The problem of this research was to analyze characteristics of paraprofessional child care workers as determined by ratings given on a scale of paraprofessional worker characteristics. The scale was derived from an extensive search of the literature which included types of human service aides; child care aides, teacher aides, social work aides, home health aides and many other kinds of nonprofessional aides or assistants. The scale of characteristics used in this study was called the Mazyck Rating Scale for Paraprofessionals and comprised two categories of characteristics, Personal-Social, and Educational-Biographical-Working Relationships.

The subjects selected for the investigation were divided into four groups: (1) a group of 67 nationally known child development specialists; (2) 197 child care program directors from Head Start; (3) 197 trained paraprofessionals who worked with the directors; and (4) 197 untrained paraprofessionals who worked with the directors. All of the paraprofessionals and the directors worked in the Mid-Atlantic Region of Head Start, or the Southeast Region, if they were employed in Kentucky or North Carolina.

Responses to the MRSP and an attached Personal Data sheet were solicited from a total of 658 individuals. Analyzed responses were completed on 390 subjects.

The responses to the instruments used in this study were subjected to the Statistical Analysis Systems computerized program. A factor analysis and multivariate analysis of the MRSP data was completed. Frequencies, means, and percentages were computed for the data from the personal data sheets. The factor analysis pointed out that the categories of the MRSP designated by the investigator were significant. The factor analysis also pointed out the existence of a third category which was given the name Reaction to Stress, since the majority of the items related to stressful situations.

Examination of rotated factor matrix loadings pointed out 14 underlying factors in the MRSP. Of this number, nine factors were readily identified and items in the MRSP were designated for the factors. The five factors that could not be named did not have enough items in the MRSP to represent the factor and the lower factor loadings could not assist in verifying the factor.

A study of each category with the four groups using a one way multivariate analysis of variance revealed a significant F for all categories including Reaction to Stress. This finding did not verify a null hypothesis of no difference between the groups rating the categories of the MRSP. The MRSP differentiated characteristics into categories when rated by the subjects in this study. The data demonstrated that the MRSP had three categories of items, and that the items can be placed under nine major headings or factors.

The sample to whom the Mazyck Rating Scale for Paraprofessionals (MRSP) was administered was composed of three groups that were similar, the untrained aides, the trained aides, and the child care directors. The fourth group, the child development specialists were dissimilar and accounted for significant differences when combined with certain of these groups and compared with others in combination. The major hypothesis of this research - that child development specialists, child care directors, and child care paraprofessionals would differ significantly in rating characteristics of paraprofessionals - was verified.

The examination of the personal data showed the average paraprofessional child care worker to be married, middle aged, with children older than 6 years of age, and had on the average, 11 years of schooling. The child care program director was much the same kind of person, but had more education. The director had finished high school and had, on the average, three years of college. The untrained aides, trained aides, and child care directors all had less than five years of child care work experience, with the untrained aide having the least experience, and the director the most.

The child development specialist was a well trained person, usually possessing a doctorate degree in his area of specialization. The specialists had more experience working with children than supervising paraprofessionals.

Several conclusions were drawn from the data using the Mazyck Rating Scale for Paraprofessionals (MRSP).

1. Future use of the MRSP should consider three categories, Personal-Social, Educational-Biographical-Working Relationships, and Reaction to Stress.

2. The items in the MRSP which were not verified under some of the factors ought to be dropped from the scale.

3. The items of the MRSP should be written in a manner that is more easily read and understood by the paraprofessional. A change in language may result in different ratings on the items than those revealed in this study.

4. A common group of characteristics that applies to all paraprofessional child care workers is eminent. This study has identified some characteristics which have been categorized, placed under factor headings, and are capable of being rated by different groups of people in the child care field.

5. Further research in the area of paraprofessional characteristics needs to be done to determine ways of quantitatively measuring the characteristics and relating these measures to identifiable behavior. These measures need to be of such a type that the average paraprofessional could be easily assessed. Also, the measures should be easy to use and interpret by those who regularly supervise paraprofessionals.

6. This investigation was considered as a first stage investigation of generalized child care paraprofessionals' characteristics. Caution should be taken in making broad generalizations based on this study. More research involving a nation-wide sample of subjects from work related areas similar to the subjects of this study should be considered prior to drawing conclusions about paraprofessional characteristics.

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APPENDIX A

The Mazyck Rating Scale for Paraprofessionals

THE MAZYCK RATING SCALE FOR PARAPROFESSIONALS

The objective of this scale is to rate characteristics of paraprofessionals which are considered desirable in the selection of child care workers. Each statement includes a characteristic about which you are asked to express some level of attitude.

DIRECTIONS

Read each statement carefully and mark X in the parenthesis under the column heading that indicates how you feel about each item. Whenever possible, let your own personal experience determine your answer. Do not spend much time on any item. If in doubt, mark X in the parenthesis under the column which seems most nearly to express your present feelings about the statement.

BE SURE TO ANSWER EVERY ITEM.

(A paraprofessional is a subprofessional, a nonprofessional, an assistant, an attendant, or an aide.)

DIRECTIONS:

Mark an X in the parenthesis under the column heading that indicates how you feel about each of the following items.

In your opinion, a good paraprofessional:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. finds frustration undesirable.	( )	( )	( )	( )	( )
2. has a sense of humor at all times.	( )	( )	( )	( )	( )
3. is dependable if he plans to progress in his work.	( )	( )	( )	( )	( )
4. needs patience in work with children.	( )	( )	( )	( )	( )
5. has difficulty in carrying out continuous displays of enthusiasm.	( )	( )	( )	( )	( )
6. demonstrates his communicative skills through his abilities in reading and writing.	( )	( )	( )	( )	( )
7. resides in the community in which he works.	( )	( )	( )	( )	( )
8. is between the ages of 25 and 35.	( )	( )	( )	( )	( )
9. has ability to work with others.	( )	( )	( )	( )	( )
10. shows adult hostility when it is necessary.	( )	( )	( )	( )	( )
11. loves children.	( )	( )	( )	( )	( )

DIRECTIONS:

Mark an X in the parenthesis under the column heading that indicates how you feel about each of the following items.

In your opinion, a good paraprofessional:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
12. has a skill in arithmetic and counting.	( )	( )	( )	( )	( )
13. has a two-year college education.	( )	( )	( )	( )	( )
14. has secure personal feelings.	( )	( )	( )	( )	( )
15. possesses personal warmth.	( )	( )	( )	( )	( )
16. demonstrates his responsiveness through his ability to stimulate a group.	( )	( )	( )	( )	( )
17. is a good homemaker.	( )	( )	( )	( )	( )
18. is only cooperative in his work with others who are professionals.	( )	( )	( )	( )	( )
19. has good moral character.	( )	( )	( )	( )	( )
20. is over 35 years old.	( )	( )	( )	( )	( )
21. is well groomed.	( )	( )	( )	( )	( )
22. may be any age.	( )	( )	( )	( )	( )
23. is a female.	( )	( )	( )	( )	( )
24. is 60 years old or over.	( )	( )	( )	( )	( )
25. must exhibit self-confidence	( )	( )	( )	( )	( )
26. needs to have many non-specific personal characteristics.	( )	( )	( )	( )	( )
27. is able to adapt to all situations.	( )	( )	( )	( )	( )

DIRECTIONS:

Mark an X in the parenthesis under the column heading that indicates how you feel about each of the following items.

In your opinion, a good paraprofessional:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
28. feels the idea of having sincere interest in children is over-emphasized.	( )	( )	( )	( )	( )
29. has children of his own.	( )	( )	( )	( )	( )
30. has a high school education.	( )	( )	( )	( )	( )
31. could be either male or female.	( )	( )	( )	( )	( )
32. is punctual in going to a task when he is supposed to.	( )	( )	( )	( )	( )
33. has good physical health.	( )	( )	( )	( )	( )
34. works best under the supervision of professional child care specialists.	( )	( )	( )	( )	( )
35. has an outgoing personality.	( )	( )	( )	( )	( )
36. is a mature person.	( )	( )	( )	( )	( )
37. gains specific knowledge about children through formal education.	( )	( )	( )	( )	( )
38. exhibits a pleasant speaking voice.	( )	( )	( )	( )	( )
39. finds demonstrations of outward reactions to stress in child care situations undesirable.	( )	( )	( )	( )	( )
40. shows compassion in his interpersonal relations at all levels.	( )	( )	( )	( )	( )
41. has outside interests.	( )	( )	( )	( )	( )

DIRECTIONS:

Mark an X in the parenthesis under the column heading that indicates how you feel about each of the following items.

In your opinion, a good paraprofessional:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
42. relieves the professional child care specialists of the routine tasks.	( )	( )	( )	( )	( )
43. has an eighth grade education.	( )	( )	( )	( )	( )
44. has a positive attitude toward work.	( )	( )	( )	( )	( )
45. has good working relations in all child care situations.	( )	( )	( )	( )	( )
46. possesses common sense.	( )	( )	( )	( )	( )

GO TO THE NEXT PAGE AND COMPLETE PERSONAL DATA SHEET

APPENDIX B

List of Characteristics Presented to the Panel of Judges

Directions for Judges

Category Definitions

LIST OF CHARACTERISTICS PRESENTED TO THE PANEL OF JUDGES

demonstrates his communicative skills through his abilities in reading and writing

shows articulateness when he talks freely with children

has an eighth grade education

has a two-year college education

has good physical health

has good mental health

observes professional ethics

has good working relations in all child care situations

is 16 years old

is over 35 years old

is 60 years old or over

has a knowledge of specific information about children

acquires a knowledge of techniques to use with children

is only cooperative in his work with others who are professionals

has ability to work with others

has a record of previous work experience with children if he is currently successful

shows adult hostility when it is necessary

finds demonstrations of outward reactions to stress in child care situations undesirable

finds frustration undesirable

has a knowledge of the disadvantaged

can communicate with the disadvantaged

resides in the community in which he works

has few arrests and convictions on his record

needs to have many non-specific personal characteristics

exhibits a pleasant speaking voice

has secure personal feelings

possesses personal warmth

has an outgoing personality

is flexible

has the capacity to take on training

is a mature person

has a positive attitude toward work

has children of his own

has had community leadership experiences with outside groups

has commitment for advancement in the field of child care

relieves the professional child care specialists of the routine tasks

has legible handwriting

knows how to prepare reports as a part of his work

needs patience in work with children

could be either male or female

is a female

is a good homemaker

has good moral character

finds interest in people an asset in handling children finds initiative an asset in handling children

is multilingual

shows compassion in his interpersonal relations at all levels

may be any age

acquires his alertness from others

has respect for authority in all situations

works best under the supervision of professional child care specialists

loves children

feels the idea of having sincere interest in children is over-emphasized

needs specific aptitudes in many different areas

shows good judgment

possesses common sense

shows empathy through his ability to understand the feelings children feel

must exhibit self-confidence

is well groomed

demonstrates his responsiveness through his ability to stimulate a group

is alert

must be able to adapt to all situations

is dependable if he plans to progress in his work

is punctual in going to a task when he is supposed to

has a positive attribute, reliability

takes a task and sees it through, is responsible

has skill in arithmetic and counting

is bilingual in order that he may work with children who speak different languages

has a background of poverty

has an inner desire to accomplish a task which motivates him

has sense of humor at all times

is easy-going in his work with children

is informal at all times in working with children

has difficulty in carrying out continuous displays of enthusiasm

gains specific knowledge about children through formal education

has a high school education

has outside interests

is between the ages of 25 and 35

DIRECTIONS FOR JUDGES

You are asked to serve as a judge for the purpose of categorizing 78 statements which are on the enclosed cards. All of these statements are related to characteristics of paraprofessionals as found in a variety of literature. Each statement or group of words carries with it a preface as follows:

In your opinion a good paraprofessional ...

The specific contextual relationship of the statements bears more on the child care paraprofessional than on any other type paraprofessional.

Please put each of these statements into one of four categories. Do not cast out any statements, change them, or leave them out of a category. The categories are: PERSONAL-SOCIAL, WORKING RELATIONSHIPS, EDUCATIONAL, and BIOGRAPHICAL. Each category is defined at the top of one of the attached sheets. As you put the cards in categories, place them on the proper sheets under their respective definitions. After all cards have been placed in the four piles, go back to each pile and rank[1] the statements you have put into the pile by writing the numbers 1, 2, 3, etc. on the top right corner of each card. When you have finished, fold the sheet of paper with the definition around each pack of cards and return them to the envelope. THANK YOU FOR YOUR HELP.

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[1] To rank is to put in order of importance.

CATEGORY DEFINITIONS

Personal-Social

Any statement or idea that relates to how a person feels about himself, and what others may think about him as an individual. The statement or idea may also relate to a person's interaction with others or with his environment.

Biographical

Any statement or idea that relates to, or makes reference to such facts as age, sex, religion, physical condition or some other similar type of related information.

Educational

Any idea or statement that relates directly to having a level of education, having a specific educational requirement, or not having any educational requirement. It may refer to specific ideas on schooling, both formal and informal.

Working Relationships

These are statements or ideas relating to the person while on the job, in a job connected setting or situation, or how he relates himself to the job as a person.

APPENDIX C

Child Development Specialist's Personal Data

Director's Personal Data

Paraprofessional's Personal Data

CHILD DEVELOPMENT SPECIALIST'S PERSONAL DATA

Please give a few facts about yourself by either checking or writing in the requested information.

1. Sex: (check one) female ____; male____.
2. Marital status: (check one) single____: married____; divorced____; separated____; widowed____.
3. Do you have children? (check) Yes____; No___; Number of boys____; Number of girls____; Number of children under age 6____.
4. Age range: (check one) 21-25___; 26-30___; 31-35___; 36-40___; 41-45___; 46-50___; over 60___.

EDUCATION

5. Degrees held: B.S.___; M.A.___; Ph. D.___; Ed.D.___; Other __________________.
6. Area of educational specialization: (check what applies) Child Development___; Early Childhood Education___; Home Economics ___; Elementary Education___; Secondary Education___; Psychology___; Sociology___; Educational Psychology___; Educational Sociology___; Family Life Education___; Social Work___; Other (name the field) ___________________________.

EMPLOYMENT

7. Number of years experience in field of specialization ____.
8. Number of years you have had interest in child development ___.
9. Years of experience working directly with children under the age of 6 years ____.
10. Numbers of years you have had experience in supervising or working directly with paraprofessionals____.
11. Have you worked directly with children under 6 during the past five years: Yes____; No____.
12. Have you worked directly with paraprofessionals during the past five years: Yes____; No____.

DIRECTOR'S PERSONAL DATA

Please give a few facts about yourself by either checking or writing in the requested information.

1. Sex: female___; male___. 2. Birth date______________

3. Marital status: single___; married___; divorced___; separated___; widowed___.

4. Do you have children? Yes___; No___; Number of boys___; Number of girls___; Number of children under six ___.

5. Director's age range: 16-20___; 21-25___; 26-30___; 31-35___; 36-40___; 41-45___; 46-50___; over 60___.

6. Number of years of elementary school completed______.

7. Number of years of high school completed___. Graduated: Yes___; No___. Date of graduation(yr.)______

8. Number of years of college completed___; Graduated: Yes___; No___.

9. Area of college training: ______________________________

10. Technical and/or vocational training, type or kind (name)___________________________; Number of years ____.

11. Area of educational specialization: (check what applies) Child Development___; Early Childhood Education___; Home Economics___; Elementary Education___; Secondary Education___; Psychology___; Sociology___; Other (name field)________________________.

12. Degree(s) held: B.S.___; M.A.___; Ph.D.___; Other____.

13. Length of time in child care work: Years___; Months___.

14. Number of months in present job___; or years___.

15. Experience as child care center director (months)_____; or (years) ____.

16. How many paraprofessionals do you supervise______.

17. What is the total capacity of your center(s)________.

18. What is the age range of the children you supervise_____

19. Did you receive your Head Start training in Greensboro? Yes___; No___. If not, where did you receive it________.

PARAPROFESSIONAL'S PERSONAL DATA

Please give a few facts about yourself by either checking or writing in the requested information.

1. Sex: (check one) female___; male___. 2. Birth date_____

3. Marital status: (check one) single___; married___; divorced___; separated___; widowed___.

4. Do you have children? (check one) Yes___; No___; Number of boys___; Number of girls___; Number of children under six ____.

5. Paraprofessional's range (check one) 16-20___; 21-25___; 26-30___; 31-35___; 36-40___; 41-45___; 46-50___; over 60 ___.

EDUCATION

6. Number of years of elementary school completed_______.

7. Number of years of high school completed___. Graduated: Yes___; No___; Date of graduation(year)____.

8. Number of years of college completed____; Graduated: Yes____; No____.

9. Area of college training: ____________________________.

10. Technical and/or vocational training, type or kind (name) _______________________ Number of years______.

EMPLOYMENT

11. Number of years of child care work___; or number of months in child care work___.

12. Number of months in present job___; or number of yrs.___.

13. Previous kinds of paid work experiences _____________

____.

14. Plan to continue in child care work: Yes___; No___.

15. Did you receive your Head Start training in Greensboro? Yes___No___. If not, where did you receive it ________ ___________. If you have had no training, make a check here___.

APPENDIX D

Letter to Head Start Center Directors

Letters to Child Development Specialists

February 15, 1971

Dear

Considerable interest has developed in all areas of child care research and at this time we are engaged in research on characteristics of child care paraprofessionals. This research is being done at The University of North Carolina at Greensboro with permission from the Leadership Development Training Program for Head Start at The University of North Carolina at Greensboro, and the Mid-Atlantic and Southeast Regional Offices of Child Development for Head Start.

This research purposes to study Head Start Directors and two groups of Head Start Aides from the Mid-Atlantic and Southeast regions in order to find out how they rate a group of characteristics considered important in the selection of paraprofessional (aides) child care workers. Information received from this study will be available to you to use in your program.

Enclosed are three copies of a rating scale on characteristics used in the selection of child care workers and its attached personal data sheet. They are to be used as follows:

1. The yellow copy to be completed by the Head Start Director.
2. The blue copy to be completed by an aide in your program who received her training at the Leadership Development Training Program at The University of North Carolina at Greensboro. If you do not have an aide who received her training in Greensboro, write NOT AVAILABLE on the blue rating scale and return it in the attached envelope.
3. The pink copy is for another aide in your program who has not received any formal training, except the usual in-service training carried out in the local program.

As director, we would appreciate it if you would permit the aides you select, using the above criteria, to spend 30 minutes of their time completing the rating scale and the attached personal data sheet. We would also appreciate it if you would see to it that the aides fill out the rating scales individually and without help. In addition, we would be pleased to have you spend 30 minutes of your time to fill out the yellow rating scale and the attached personal data sheet.

In order that we may carry out this important part of this research, we have set a deadline of March 1, 1971 for all scales to be returned. Please see that your aides involved in this research observe this date. Each scale is to be returned in its own self-addressed stamped envelope which is attached.

We would like you to know that Mrs. Rachel Fesmire and the two Regional Head Start Offices are deeply concerned with this research project and its outcome. Mrs. Fesmire feels that it will offer some important information to all who work in Head Start, especially directors and training specialists.

Thank you for helping us in this research project. We appreciate your time and look forward to receiving the rating scales by March 1, 1971.

Sincerely yours,

Harold E. Mazyck, Jr.
Graduate Researcher

(Mrs.)Rachel Fesmire, Director
Head Start Leadership Development Program
Mid-Atlantic Region

J. Allen Watson, Ph. D.
Associate Professor of
Child Development and Family Relations,
and Research Specialist

February 15, 1971

Dear

Considerable interest has developed in all areas of child care research and at this time we are engaged in research on characteristics of child care paraprofessionals. This research is being done at The University of North Carolina at Greensboro with permission from the Leadership Development Training Program for Head Start at The University of North Carolina at Greensboro, and the Mid-Atlantic and Southeast Regional Offices of Child Development for Head Start.

This research purposes to study Child Development Specialists, Head Start Directors, and two groups of Head Start Aides in order to find out how they rate a group of characteristics considered important in the selection of paraprofessional (aides) child care workers. Information received from this study, hopefully, should be of value to all who work in Head Start or who have interest in its program.

Enclosed is a copy of the rating scale and its attached personal data sheet which we are asking you to complete, and return in the enclosed self-addressed stamped envelope. The rating scale should take only about 30 minutes or less of your time.

We would like you to know that the Mid-Atlantic Regional and Southeast Regional Offices of Child Development for Head Start are deeply concerned with this project and its outcome. It feels that this research will offer some important information to all Head Start offices, and all who work in Head Start, especially directors and training specialists.

Thank you for helping us in this research project. We appreciate your time and look forward to your returned rating scale and data sheet. The deadline for the return of all materials is March 1, 1971.

Sincerely yours,

Harold E. Mazyck, Jr.
Graduate Researcher

(Mrs.) Rachel Fesmire, Director
Head Start Leadership Development Program
Mid-Atlantic Region

J. Allen Watson, Ph. D.
Associate Professor of
Child Development and Family Relations,
and Research Specialist

APPENDIX E

Follow-up Letters to Subjects

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

Greensboro, North Carolina

March 8, 1971

Dear Research Participant:

We have not heard from you! We want to know how you feel about the characteristics of paraprofessionals by researching your expressions on the Mazyck Rating Scale for Paraprofessionals.

On February 15 you were sent a Mazyck Rating Scale for Paraprofessionals from this University by Dr. J. Allen Watson, Mrs. Rachel Fesmire, and me. We are interested in your returning the scale and/or having the aides you selected to return their scales. We are in urgent need of the information to continue our research. We are sure that it will be beneficial to Head Start Directors, as well as, others who work with paraprofessionals. Many people at the regional and national levels are looking forward to the completion of this project. We would appreciate the immediate return of the Rating Scales by the end of this week.

If you and the aides you selected to participate in the research have returned their Rating Scales, we are very appreciative. Your return and this letter may have crossed in the mail, for this we are sorry, please accept our apology.

We thank you for your cooperation, and will earnestly hurry to get the findings back to you.

Sincerely,

Harold E. Mazyck, Jr.
Graduate Researcher

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

Greensboro, North Carolina

March 8, 1971

MEMORANDUM

TO: Child Development Specialists, Professors of Psychology, and Professionals in Child Research

FROM: J. Allen Watson, Ph. D., Rachel Fesmire, Director, Head Start Leadership Training Program, and Harold E. Mazyck, Jr., Graduate Researcher

RE: RETURN OF THE MAZYCK RATING SCALE FOR PARAPROFESSIONALS

We have not received your response to the Mazyck Rating Scale for Paraprofessionals that was sent to you February 15. We are looking forward to counting your attitudes in our research project. We are making every effort to complete this research within the very near future in order that the results may be distributed to all interested parties. The Mid-Atlantic Regional Office and the Head Start Research and Evaluation Office are looking forward to our findings.

We need your help in continuing our research and will appreciate your response by the end of this week.

If your return of the rating scale and this memorandum have crossed in the mail, we are deeply sorry, please ignore this inquiry.

APPENDIX F

Paraprofessional Characteristics by Categories

PARAPROFESSIONAL CHARACTERISTICS BY CATEGORIES

Personal-Social

shows adult hostility

finds demonstrations of outward reactions to stress in child care situations undesirable

finds frustration undesirable

loves children

feels the idea of having sincere interest in children is over-emphasized

possesses common sense

must exhibit self-confidence

is well groomed

demonstrates his responsiveness through his ability to stimulate a group

is able to adapt to all situations

has difficulty in carrying out continuous displays of enthusiasm

has a sense of humor at all times

needs to have many non-specific personal characteristics

exhibits a pleasant speaking voice

has secure personal feelings

possesses personal warmth

has an outgoing personality

is a mature person

needs patience in work with children

is a good homemaker

has good moral character

shows compassion in his interpersonal relations at all levels

has outside interests

Education - Working Relationships - Biographical

demonstrates his communicative skills through his abilities in reading and writing

has an eighth grade education

has a two-year college education

has skill in arithmetic and counting

gains specific knowledge about children through formal education

has a high school education

has good working relations in all child care situations

is only cooperative in his work with others who are professionals

has ability to work with others

works best under supervision of professional child care specialists

is dependable if he plans to progress in his work

is punctual in going to a task when he is supposed to

has a positive attitude toward work

relieves the professional child care specialists of the routine tasks

has good physical health

is over 35 years old

is 60 years old or over

resides in the community in which he works has children of his own

could be either male or female

is a female

may be any age

is between the ages of 25 and 35

APPENDIX G

List of Child Development Specialists
Used in this Study

LIST OF CHILD DEVELOPMENT SPECIALISTS
USED IN THIS STUDY

Dr. Milton Akers
Executive Director
National Association for Education of Young Children
1834 Connecticut Avenue, N. W.
Washington, D. C. 20009

Dr. Millie Almy, Professor
Department of Early Childhood Education
Box 9, Teachers College
Columbia University
New York, N. Y. 10007

Mrs. Stevanne Auerbach
Professional Assistant
Office of the Special Assistant for Urban Education
Office of the Commissioner of Education
Department of Health, Education, and Welfare
Washington, D. C.

Dr. Alfred A. Baumeister
Center for Developmental and Learning Disorders
University of Alabama
University, Alabama

Dr. Bruno Bettelheim
University of Chicago
Chicago, Illinois

Dr. Donald Baer
Associate Professor
Department of Human Development
University of Kansas
Lawrence, Kansas 66045

Dr. Clara Baldwin
Center for Research in Education
Cornell University
Ithaca, New York 14850

Dr. Nancy Bayley
252 Alvarado Road
Berkeley, California

Dr. Silvia M. Bell
Department of Psychology
John Hopkins University
Baltimore, Maryland 21218

Dr. Urie Bronfenbrenner
Professor of Psychology and Human Development
Cornell University
Ithaca, New York 14805

Dr. Jerome Bruner
Professor Psychology
Center for Cognitive Studies
Harvard University
Cambridge, Massachusetts

Dr. James Bryan
Department of Psychology
Northwestern University
Evanston, Illinois 60201

Dr. Bettye Caldwell, Director
Center for Early Development and Education
Little Rock, Arkansas

Dr. Joseph Church
Department of Psychology
Brooklyn College
Brooklyn, New York 11210

Dr. Kenneth B. Clark
Metropolitan Applied Research Center, Inc.
60 E. 86th Street
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Child Development Laboratory
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Miss Margaret L. Cooper
The Edna A. Hill Child Development Center
Department of Human Development
The University of Kansas
Lawrence, Kansas 06044

Miss Lela B. Costin
Department of Social Work
University of Illinois
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Dr. Samuel H. Cox
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Dr. Therry Deal
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Athens, Georgia

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Dr. Donald J. Dickerson
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National Association for Education of Young Children
1834 Connecticut Avenue, N. W.
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Mrs. Belle Dubnoff, Director
Dubnoff School for Educational Therapy
North Hollywood, California

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Dr. Siegfried Engelmann
University of Oregon
Eugene, Oregon

Dr. Jacob R. Fishman
Professor of Psychiatry, School of Medicine
Howard University
Washington, D. C.

Dr. John H. Flavell, Professor
Institute of Child Development
University of Minnesota
Minneapolis, Minnesota

Dr. Edmund Gordon
Professor of Psychology and Education
Ferkauf Graduate School of Humanities and Social Sciences
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Dr. Ira Gordon
Institute of Human Resources
University of Florida
Gainesville, Florida

Dr. Susan Gray, Director
Demonstration and Research Center on Early Childhood Education
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114 East 32 Street
New York, New York

Dr. Florance R. Harris
Lecturer and Director
Developmental Psychology Laboratory Preschool
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Dr. Willard W. Hartup, Professor
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Stanford, California 94301

Dr. Walter L. Hodges, Associate Professor
Director of Institute for Child Study
Indiana University
Indianapolis, Indiana

Dr. Frances D. Horowitz
Associate Professor
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Dr. Arthur R. Jensen
Professor of Educational Psychology
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Berkeley, California

Dr. Jerome Kagan
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Dr. Irwin Katz, Professor
Psychology Department
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Urbana-Champaign
Urbana, Illinois

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Professor and Coordinator of Preschool Programs
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University of Minnesota
Minneapolis, Minnesota

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Child Research Branch
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Bethesda, Maryland 20014

Dr. Sidney J. Parnes
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Buffalo, New York

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New Careers Development Center
New York University
Washington Square
New York, New York

Miss Mary Robinson
Division of Research and Development
Office of Economic Opportunity
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APPENDIX H

Rotated Factor Matrix

Rotated Factor Matrix

Items	1	2	3	4	5	6	7	8
Q1	.23448	-.05049	.19760	-.03130	-.10127	-.00885	-.19144	.54769
Q2	.07322	.05567	-.29889	-.00974	-.41962	.10266	-.27154	.06272
Q3	.18407	-.01867	-.06105	-.13767	-.04592	-.09571	-.58198	.08608
Q4	.14218	-.14922	.02145	-.07786	.07402	.12632	-.61841	.00852
Q5	-.11896	.06065	.78598	.00049	-.13629	-.04387	.01505	.08056
Q6	.03659	.15557	-.10764	-.71011	-.02069	-.14988	-.06379	.10727
Q7	.22493	.56828	.04639	.00446	-.06165	-.07461	.00194	.13553
Q8	.04241	.62800	.07310	-.12208	-.16482	-.02310	.09495	.09772
Q9	.24930	.15485	.06375	.03678	.02281	.35772	-.42223	-.25429
Q10	-.05962	-.01694	.15317	-.08475	.01053	-.03711	.01490	-.12085
Q11	.48937	.01533	-.16458	-.08773	.02557	.16112	-.24080	.06855
Q12	.21597	.15940	.10925	-.67506	-.08724	.02856	-.09583	-.07817
Q13	-.02509	.29690	-.07953	-.17440	-.54242	-.29401	-.13487	-.12304
Q14	.20821	-.01404	-.01218	.02950	-.04406	.03259	-.16072	-.03807
Q15	.13892	-.07801	.10472	.04746	.07128	.03690	-.30553	.04114
Q16	.26253	.10940	-.02624	-.38313	.18094	-.00370	-.15007	.05314
Q17	.39872	.25520	-.15700	-.26950	-.06076	-.12284	-.08045	.25812
Q18	-.08196	.24856	.22495	-.16098	-.08780	-.34033	.08935	.21865
Q19	.50840	.04082	-.14660	-.27542	-.00008	-.14764	-.22704	.06384
Q20	.02849	.25384	.10016	-.04180	-.14132	-.63980	-.14562	-.13682
Q21	.74608	.03887	.05060	-.16652	-.02314	-.08155	-.08759	.06532
Q22	-.11378	-.38263	-.00295	-.23582	-.03422	-.04094	.10057	.12316
Q23	-.08047	.30989	-.06831	-.20202	-.04551	-.39733	.09757	.06803
Q24	.00888	-.06134	-.00937	-.03290	.07550	-.80021	.13502	-.06673
Q25	.50054	.07761	-.19803	-.19785	.17528	.07822	.00405	.06532
Q26	.11867	.05007	.16836	-.02786	.07754	.01319	-.00897	-.17566

Rotated Factor Matrix

Items	9	10	11	12	13	14	h^2
Q1	-.28363	.01609	-.15095	.16403	-.05400	.01886	.57817
Q2	.16519	.16811	.00846	.26302	.23810	-.22127	.59263
Q3	-.08307	.04512	.24103	.01442	.02807	-.00790	.48238
Q4	.02995	-.00536	.09348	.21680	-.02748	.06569	.51467
Q5	.13079	.07431	-.03618	.00245	.02293	.05613	.69043
Q6	.09442	.19159	-.00468	-.00146	-.02409	.02397	.62665
Q7	.30612	.06903	-.01312	.15193	-.12492	-.15530	.56489
Q8	-.09105	-.12201	-.02009	-.01269	.06293	.33112	.60003
Q9	.04523	-.01506	.14959	.15547	.05177	-.26353	.58392
Q10	.73497	.02614	-.01576	-.09354	.06732	.09688	.61457
Q11	-.10185	.24305	.10206	.14070	-.02564	-.19078	.50051
Q12	.09030	-.08668	-.06648	-.00799	.01574	-.03063	.58474
Q13	-.12331	-.07906	-.01449	.04568	.02699	.23599	.61968
Q14	-.06926	.18622	.11121	.71104	-.05518	-.09021	.64346
Q15	-.10264	-.05173	.36015	.53023	.10185	-.15245	.59776
Q16	-.13985	-.04521	.15925	.29057	.14097	.08309	.44464
Q17	.02295	.26471	.04328	.08429	.02757	-.05696	.49685
Q18	.14445	.23540	-.01056	-.27908	-.22550	-.04578	.53156
Q19	-.11267	.01873	.17823	.11167	.04895	.03034	.49550
Q20	.06620	.04618	-.05822	-.10428	.06709	.03420	.57272
Q21	-.11071	.02835	.04306	.00219	-.03746	-.10946	.63586
Q22	.31533	.10617	.11298	.39578	-.16428	-.31904	.65199
Q23	.10149	.29987	-.17030	-.07734	.37251	.00583	.59608
Q24	-.00340	-.10245	-.09376	.04879	.06174	-.04653	.70138
Q25	.01235	.14932	.15821	.38836	-.05802	.16960	.60648
Q26	.02311	.63879	.13219	.17420	-.07954	.00030	.54557

Rotated Factor Matrix

Items	1	2	3	4	5	6	7
Q27	.46697	-.02480	-.26171	-.11230	-.18560	.11940	-.02504
Q28	-.21839	-.00717	.11001	-.34543	-.22821	-.20534	.06179
Q29	.07617	.67918	.02707	-.15874	.04510	-.09343	.11845
Q30	.04161	.52708	-.07511	-.36567	-.24841	.02143	-.12089
Q31	.01665	-.20739	-.03718	.10700	-.06196	-.18477	.07903
Q32	.18176	-.00153	-.22603	-.14930	-.11489	.07261	-.08749
Q33	.60811	.21692	-.04222	.11028	-.09814	.08126	-.11084
Q34	.09453	.07170	.22005	-.06630	-.73031	.02005	.10824
Q35	.59542	.11923	-.03599	-.05456	.00279	.05162	.01025
Q36	.48513	.05193	-.11294	.13048	-.19939	.12052	.08596
Q37	.13469	.08983	-.05833	-.37942	-.26704	-.12757	.09875
Q38	.75470	-.01933	.08803	-.03776	-.01347	-.01545	-.08413
Q39	.02541	.10335	-.00309	-.00366	.07966	.14402	.02497
Q40	.16091	-.06723	-.08718	.04914	-.16125	-.02721	.03508
Q41	.34166	-.02569	.16381	-.08029	.06676	.12279	.35820
Q42	.15308	.03001	.16478	-.42133	-.19290	.08925	.06690
Q43	.18273	-.00362	.01872	-.02506	-.00282	-.07291	-.01009
Q44	.15277	.06306	.02033	.04122	.14501	.02860	-.07015
Q45	.38953	-.01556	-.09154	.01116	-.17937	.03296	-.10501
Q46	.19137	-.11831	.11126	.05815	.01127	.11745	-.23690

Rotated Factor Matrix

Items	8	9	10	11	12	13	14	h^2
Q27	.14185	-.06585	.45208	.10217	-.02517	.06309	-.04287	.59484
Q28	.10290	.27441	-.01159	-.15755	-.20953	.00602	.44890	.63280
Q29	.01293	-.02390	.12464	-.05318	.03656	.02619	-.05219	.54166
Q30	-.10573	-.14177	-.50128	.06569	-.12275	.07533	-.09202	.56311
Q31	-.01608	.20188	-.35052	.39340	.25674	-.41291	.06652	.65982
Q32	-.05636	.05293	-.10211	.62436	-.01338	-.05721	-.11557	.55559
Q33	-.14085	.13470	-.06885	.23094	.09271	.04619	-.09230	.57462
Q34	.00839	-.00225	-.00097	.00498	-.05573	-.02870	-.09795	.62599
Q35	.08449	-.05441	.02580	.10299	.34939	.19862	.16904	.58726
Q36	-.14284	.09721	.18328	.21921	.30930	.07545	.20761	.58546
Q37	.14776	-.16338	-.02099	-.05466	-.07694	.01485	-.45915	.53982
Q38	.00908	-.01735	.00139	.13215	-.05595	.10466	-.13420	.63656
Q39	.73761	.02533	-.08480	.10732	-.06739	.09757	.01137	.61667
Q40	-.13710	-.02163	.08349	.35016	.27021	.19959	-.45700	.53895
Q41	-.04824	-.09924	.01755	.35280	.24192	.03134	-.18300	.52846
Q42	-.19344	-.40314	.18591	.17491	-.01797	.22039	.03230	.59370
Q43	.05996	.03892	-.07667	.07059	.04070	.79559	-.03513	.69163
Q44	.07505	-.01850	.09094	.74716	.19641	.01676	.00828	.66762
Q45	.19467	-.01690	.36223	.46958	.11264	.15410	-.01681	.63139
Q46	-.01504	.03222	.15880	.64502	.05271	.01774	.00176	.58205